GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:38:41 ; Search time 21 Seconds
(without alignments)
1055.099 Million cell updates/sec

Title: US-10-089-485-4
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 572060 seqs, 82675679 residues

Word size : 1

Total number of hits satisfying chosen parameters: 570988

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*
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5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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| 1 | 268 | 100.0 | 268 | 1 | US-08-439-725A-12 | Sequence 12, Appl |
| 2 | 268 | 100.0 | 268 | 1 | US-08-464-590A-17 | Sequence 17, Appl |
| 3 | 268 | 100.0 | 268 | 1 | US-08-207-412B-12 | Sequence 12, Appl |
| 4 | 268 | 100.0 | 268 | 1 | US-08-867-471-12 | Sequence 12, Appl |
| 5 | 268 | 100.0 | 268 | 1 | US-08-438-439C-8 | Sequence 8, Appli |
| 6 | 268 | 100.0 | 268 | 1 | US-08-951-822-33 | Sequence 33, Appl |
| 7 | 268 | 100.0 | 268 | 2 | US-08-718-904-14 | Sequence 14, Appl |
| 8 | 268 | 100.0 | 268 | 2 | US-09-093-585-17 | Sequence 17, Appl |
| 9 | 268 | 100.0 | 268 | 2 | US-09-368-951-33 | Sequence 33, Appl |
| 10 | 268 | 100.0 | 268 | 2 | US-09-449-249-14 | Sequence 14, Appl |
| 11 | 268 | 100.0 | 268 | 2 | US-09-390-207-20 | Sequence 20, Appl |
| 12 | 268 | 100.0 | 268 | 2 | US-09-229-947-33 | Sequence 33, Appl |
| 13 | 268 | 100.0 | 268 | 2 | US-09-572-406B-11 | Sequence 11, Appl |
| 14 | 226 | 84.3 | 247 | 2 | US-09-240-952-5 | Sequence 5, Appli |
| 15 | 226 | 84.3 | 248 | 2 | US-09-240-952-3 | Sequence 3, Appli |
| 16 | 226 | 84.3 | 268 | 2 | US-09-023-082A-15 | Sequence 15, Appl |
| 17 | 226 | 84.3 | 268 | 2 | US-09-240-952-2 | Sequence 2, Appli |
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| 19 | 226 | 84.3 | 268 | 2 | US-09-610-651-15 | Sequence 15, Appl |
| 20 | 226 | 84.3 | 268 | 2 | US-09-345-373-15 | Sequence 15, Appl |
| 21 | 226 | 84.3 | 268 | 2 | US-10-075-446-15 | Sequence 15, Appl |
| 22 | 198 | 73.9 | 269 | 1 | US-08-438-439C-18 | Sequence 18, Appl |
| 23 | 195 | 72.8 | 268 | 2 | US-09-949-016-7942 | Sequence 7942, Ap |
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| 25 | 182 | 67.9 | 267 | 1 | US-08-462-169B-13 | Sequence 13, Appl |
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| 27 | 182 | 67.9 | 267 | 2 | US-09-425-021-13 | Sequence 13, Appl |
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| 33 | 172 | 64.2 | 219 | 4 | PCT-US95-09172-13 | Sequence 13, Appl |
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| 36 | 151 | 56.3 | 268 | 2 | US-09-490-714-14 | Sequence 14, Appl |
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| 38 | 90 | 33.6 | 264 | 2 | US-09-390-207-30 | Sequence 30, Appl |
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| 41 | 27 | 10.1 | 27 | 1 | US-08-290-373B-6 | Sequence 6, Appli |
| 42 | 15 | 5.6 | 15 | 2 | US-09-537-817B-1 | Sequence 1, Appli |
| 43 | 15 | 5.6 | 19 | 2 | US-09-537-817B-10 | Sequence 10, Appl |
| 44 | 13 | 4.9 | 13 | 2 | US-09-537-817B-9 | Sequence 9, Appli |
| 45 | 11 | 4.1 | 15 | 2 | US-09-537-817B-2 | Sequence 2, Appli |

ALIGNMENTS

RESULT 1
US-08-439-725A-12
; Sequence 12, Application US/08439725A
; Patent No. 5693775
; GENERAL INFORMATION:
; APPLICANT: Nathans, Jeremy
; APPLICANT: Smallwood, Philip M.
; APPLICANT: Macke, Jennifer P.
; TITLE OF INVENTION: FIBROBROBLAST GROWTH FACTOR HOMOLOGOUS
; TITLE OF INVENTION: FACTOR-1 (FHF-1) AND METHODS OF USE
; NUMBER OF SEQUENCES: 15
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 4225 Executive Square, Suite 1400
; CITY: La Jolla
; STATE: CA
; COUNTRY: USA
; ZIP: 92037
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/439,725A
; FILING DATE: 12-MAY-1995
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Haile, Lisa A.
; REGISTRATION NUMBER: 38,347
; REFERENCE/DOCKET NUMBER: 07265/047001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 619/678-5070
; TELEFAX: 617/678-5099
; INFORMATION FOR SEQ ID NO: 12:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 268 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-439-725A-12

Query Match 100.0%; Score 268; DB 1; Length 268;
Best Local Similarity 100.0%; Pred. No. 6.6e-244;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
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Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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RESULT 2
US-08-464-590A-17
; Sequence 17, Application US/08464590A
; Patent No. 5763214
; GENERAL INFORMATION:
; APPLICANT: HU, JING-SHAN
; APPLICANT: ROSEN, CRAIG A.
; TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR-11
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN, CECCHI,
; ADDRESSEE: STEWART & OLSTEIN
; STREET: 6 BECKER FARM ROAD
; CITY: ROSELAND
; STATE: NJ
; COUNTRY: US
; ZIP: 07068
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/464,590A
; FILING DATE: 05-JUN-1995
; CLASSIFICATION: 536
; ATTORNEY/AGENT INFORMATION:
; NAME: MULLINS, J. G.
; REGISTRATION NUMBER: 30,073
; REFERENCE/DOCKET NUMBER: 325800-438
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (201) 994-1700
; TELEFAX: (201) 994-1744
; INFORMATION FOR SEQ ID NO: 17:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 268 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-464-590A-17

Query Match 100.0%; Score 268; DB 1; Length 268;
Best Local Similarity 100.0%; Pred. No. 6.6e-244;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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RESULT 3
US-08-207-412B-12
; Sequence 12, Application US/08207412B
; Patent No. 5817485
; GENERAL INFORMATION:
; APPLICANT: Hu, Jing-Shan
; TITLE OF INVENTION: Fibroblast Growth Factor-10
; NUMBER OF SEQUENCES: 15
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Carella, Byrne, Bain, Gilfillan, Cecchi,
; ADDRESSEE: Stewart & Olstein
; STREET: 6 Becker Farm Road
; CITY: Roseland
; STATE: NJ
; COUNTRY: USA
; ZIP: 07068-1739
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/207,412B
; FILING DATE: 08-MAR-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Ferraro, Gregory D
; REGISTRATION NUMBER: 36,134
; REFERENCE/DOCKET NUMBER: 325800-100
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 201-994-1700
; TELEFAX: 201-994-1744
; INFORMATION FOR SEQ ID NO: 12:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 268 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-207-412B-12

Query Match 100.0%; Score 268; DB 1; Length 268;
Best Local Similarity 100.0%; Pred. No. 6.6e-244;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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RESULT 4
US-08-867-471-12
; Sequence 12, Application US/08867471
; Patent No. 5872226
;  GENERAL INFORMATION:
;    APPLICANT:  Nathans, Jeremy
;    APPLICANT:  Smallwood, Philip M.
;    APPLICANT:  Macke, Jennifer P.
;    TITLE OF INVENTION:  FIBROBROBLAST GROWTH FACTOR HOMOLOGOUS
;    TITLE OF INVENTION:  FACTOR-1 (FHF-1) AND METHODS OF USE
;    NUMBER OF SEQUENCES:  15
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/867,471
;      FILING DATE:  02-JUN-1997
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/439,725
;      FILING DATE:  12-MAY-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Haile, Lisa A.
;      REGISTRATION NUMBER:  38,347
;      REFERENCE/DOCKET NUMBER:  07265/047001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/678-5070
;      TELEFAX:  617/678-5099
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-867-471-12

  Query Match           100.0%;  Score 268;  DB 1;  Length 268;
  Best Local Similarity  100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
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Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
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Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 5
US-08-438-439C-8
; Sequence 8, Application US/08438439C
; Patent No. 5876967
;  GENERAL INFORMATION:
;    APPLICANT:  Nathans, Jeremy
;    APPLICANT:  Smallwood, Phillip M.
;    APPLICANT:  Macke, Jennifer P.
;    TITLE OF INVENTION:  FIBROBROBLAST GROWTH FACTOR HOMOLOGOUS
;    TITLE OF INVENTION:  FACTOR-2 AND METHODS OF USE
;    NUMBER OF SEQUENCES:  25
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/438,439C
;      FILING DATE:  May 12, 1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Haile, Lisa A.
;      REGISTRATION NUMBER:  38,347
;      REFERENCE/DOCKET NUMBER:  07265/046001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/678-5070
;      TELEFAX:  619/678-5099
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-438-439C-8

  Query Match           100.0%;  Score 268;  DB 1;  Length 268;
  Best Local Similarity  100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
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Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
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Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
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Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 6
US-08-951-822-33
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; Sequence 33, Application US/08951822A
; Patent No. 5989866
; GENERAL INFORMATION:
;  APPLICANT: Deisher, Theresa A.
;  APPLICANT: Conklin, Darrell C.
;  APPLICANT: Raymond, Fenella
;  APPLICANT: Bukowski, Thomas R.
;  APPLICANT: Holderman, Susan D.
;  APPLICANT: Hansen, Birgit
;  APPLICANT: Sheppard, Paul O.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20
;  CURRENT APPLICATION NUMBER: US/08/951,822A
;  CURRENT FILING DATE: 1997-10-16
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-08-951-822-33

  Query Match             100.0%;  Score 268;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
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Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
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Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 7
US-08-718-904-14
; Sequence 14, Application US/08718904
; Patent No. 6037329
;  GENERAL INFORMATION:
;    APPLICANT:  Baird, J. Andrew
;    APPLICANT:  Chandler, Lois Ann
;    APPLICANT:  Sosnowski, Barbara A.
;    TITLE OF INVENTION:  COMPOSITIONS CONTAINING NUCLEIC ACIDS AND LIGANDS FOR THERAPE
;    NUMBER OF SEQUENCES:  128
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  SEED and BERRY LLP
;      STREET:  6300 Columbia Center, 701 Fifth Avenue
;      CITY:  Seattle
;      STATE:  Washington
;      COUNTRY:  USA
;      ZIP:  98104-7092
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/718,904
;      FILING DATE:  24-SEP-1996
;      CLASSIFICATION:  424
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  No. 6037329tenburg Ph.D., Carol
;      REGISTRATION NUMBER:  39,317
;      REFERENCE/DOCKET NUMBER:  760100.415C1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (206) 622-4900
;      TELEFAX:  (206) 682-6031
;  INFORMATION FOR SEQ ID NO:  14:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      OTHER INFORMATION:  /note= "FGF-5"
US-08-718-904-14

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 8
US-09-093-585-17
; Sequence 17, Application US/09093585
; Patent No. 6110893
;  GENERAL INFORMATION:
;    APPLICANT:  HU, JING-SHAN
;    APPLICANT:  ROSEN, CRAIG A.
;    TITLE OF INVENTION:  FIBROBLAST GROWTH FACTOR-11
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  CARELLA, BYRNE, BAIN, GILFILLAN, CECCHI,
;      ADDRESSEE:  STEWART & OLSTEIN
;      STREET:  6 BECKER FARM ROAD
;      CITY:  ROSELAND
;      STATE:  NJ
;      COUNTRY:  US
;      ZIP:  07068
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/093,585
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/464,590
;      FILING DATE:  05-JUN-1995
;    ATTORNEY/AGENT INFORMATION:
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;       NAME:  MULLINS, J. G.
;       REGISTRATION NUMBER:  30,073
;       REFERENCE/DOCKET NUMBER:  325800-438
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (201) 994-1700
;       TELEFAX:  (201) 994-1744
;   INFORMATION FOR SEQ ID NO:  17:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  268 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
US-09-093-585-17

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 9
US-09-368-951-33
; Sequence 33, Application US/09368951
; Patent No. 6352971
; GENERAL INFORMATION:
;  APPLICANT: Deisher, Theresa A.
;  APPLICANT: Conklin, Darrell C.
;  APPLICANT: Raymond, Fenella
;  APPLICANT: Bukowski, Thomas R.
;  APPLICANT: Holderman, Susan D.
;  APPLICANT: Hansen, Birgit
;  APPLICANT: Sheppard, Paul O.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20
;  CURRENT APPLICATION NUMBER: US/09/368,951
;  CURRENT FILING DATE: 1999-08-05
;  EARLIER APPLICATION NUMBER: 08/951,822
;  EARLIER FILING DATE: 1997-10-16
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-368-951-33

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 10
US-09-449-249-14
; Sequence 14, Application US/09449249
; Patent No. 6503886
;   GENERAL INFORMATION:
;       APPLICANT: Baird, J. Andrew
;                  Chandler, Lois Ann
;                  Sosnowski, Barbara A.
;       TITLE OF INVENTION: COMPOSITIONS CONTAINING NUCLEIC ACIDS AND LIGANDS FOR THERA
;       NUMBER OF SEQUENCES: 128
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: SEED and BERRY LLP
;            STREET: 6300 Columbia Center, 701 Fifth Avenue
;            CITY: Seattle
;            STATE: Washington
;            COUNTRY: USA
;            ZIP: 98104-7092
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/449,249
;            FILING DATE: 24-No. 6503886-1999
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US/08/718,904
;            FILING DATE: 24-SEP-1996
;       ATTORNEY/AGENT INFORMATION:
;            NAME: No. 6503886tenburg Ph.D., Carol
;            REGISTRATION NUMBER: 39,317
;            REFERENCE/DOCKET NUMBER: 760100.415C1
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (206) 622-4900
;            TELEFAX: (206) 682-6031
;   INFORMATION FOR SEQ ID NO: 14:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 268 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: unknown
;       MOLECULE TYPE: peptide
;       FEATURE:
;            OTHER INFORMATION:  /note= "FGF-5"
;       SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-09-449-249-14

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
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Qy          61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy         121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy         181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy         241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
               ||||||||||||||||||||||||||||
Db         241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 11
US-09-390-207-20
; Sequence 20, Application US/09390207
; Patent No. 6504530
; GENERAL INFORMATION:
;  APPLICANT: Thomason, Arlen
;  APPLICANT: Liu, Benxian
;  TITLE OF INVENTION: Fibroblast Growth Factor-Like Polypeptides
;  FILE REFERENCE: 99-371
;  CURRENT APPLICATION NUMBER: US/09/390,207
;  CURRENT FILING DATE: 1999-09-07
;  NUMBER OF SEQ ID NOS: 41
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 20
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-390-207-20

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
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Db           1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy          61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy         121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy         181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy         241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
               ||||||||||||||||||||||||||||
Db         241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 12
US-09-229-947-33
; Sequence 33, Application US/09229947
; Patent No. 6518236
; GENERAL INFORMATION:
;  APPLICANT: Deisher, Theresa A.
;  APPLICANT:  Conklin, Darrell C.
;  APPLICANT:  Raymond, Fenella
;  APPLICANT:  Bukowski, Thomas R.
;  APPLICANT:  Holderman, Susan D.
;  APPLICANT:  Hansen, Birgit
;  APPLICANT:  Sheppard, Paul O.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20C1
;  CURRENT APPLICATION NUMBER: US/09/229,947
;  CURRENT FILING DATE:  1999-01-13
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-229-947-33

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy          61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy         121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy         181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy         241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
               ||||||||||||||||||||||||||||
Db         241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 13
US-09-572-406B-11
; Sequence 11, Application US/09572406B
; Patent No. 6605441
; GENERAL INFORMATION:
;  APPLICANT: Alderson, Ralph et al.
;  TITLE OF INVENTION: Fibroblast Growth Factor 11
;  FILE REFERENCE: PF184P1
;  CURRENT APPLICATION NUMBER: US/09/572,406B
;  CURRENT FILING DATE:  2000-05-16
;  PRIOR APPLICATION NUMBER: 60/135,524
;  PRIOR FILING DATE: 1999-05-21
;  PRIOR APPLICATION NUMBER: 09/514,587
;  PRIOR FILING DATE: 2000-02-28
;  PRIOR APPLICATION NUMBER: 09/093,585
;  PRIOR FILING DATE: 1998-06-08
;  PRIOR APPLICATION NUMBER: 08/464,590
;  PRIOR FILING DATE: 1995-06-05
;  NUMBER OF SEQ ID NOS: 28
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-572-406B-11

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-244;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy          61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
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                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
                 ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 14
US-09-240-952-5
; Sequence 5, Application US/09240952
; Patent No. 6331523
;  GENERAL INFORMATION:
;    APPLICANT:  Kljavin, Ivar
;    APPLICANT:  La Fleur, Monique
;    TITLE OF INVENTION:  Method of Preventing the Death of Retinal
;    TITLE OF INVENTION:  Neurons and Treating Ocular Diseases
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Genentech, Inc.
;      STREET:  1 DNA Way
;      CITY:  South San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94080
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5 inch, 1.44 Mb floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  WinPatin (Genentech)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/240,952
;      FILING DATE:  29-Jan-1999
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/041,383
;      FILING DATE:  12-Mar-98
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Svoboda, Craig G.
;      REGISTRATION NUMBER:  39,044
;      REFERENCE/DOCKET NUMBER:  P1088P1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650/225-1489
;      TELEFAX:  650/952-9881
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  247 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  Linear
US-09-240-952-5

  Query Match             84.3%;  Score 226;  DB 2;  Length 247;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-204;
  Matches  226;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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Qy        223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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Db        202 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 247


RESULT 15
US-09-240-952-3
; Sequence 3, Application US/09240952
; Patent No. 6331523
;  GENERAL INFORMATION:
;    APPLICANT:  Kljavin, Ivar
;    APPLICANT:  La Fleur, Monique
;    TITLE OF INVENTION:  Method of Preventing the Death of Retinal
;    TITLE OF INVENTION:  Neurons and Treating Ocular Diseases
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Genentech, Inc.
;      STREET:  1 DNA Way
;      CITY:  South San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94080
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5 inch, 1.44 Mb floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  WinPatin (Genentech)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/240,952
;      FILING DATE:  29-Jan-1999
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/041,383
;      FILING DATE:  12-Mar-98
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Svoboda, Craig G.
;      REGISTRATION NUMBER:  39,044
;      REFERENCE/DOCKET NUMBER:  P1088P1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650/225-1489
;      TELEFAX:  650/952-9881
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  248 amino acids
;      TYPE:  Amino Acid
;      TOPOLOGY:  Linear
US-09-240-952-3

  Query Match             84.3%;  Score 226;  DB 2;  Length 248;
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  Matches  226;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        143 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 202

Qy        223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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Job time : 21 secs
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GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:43:56 ; Search time 9.5 Seconds
(without alignments)
879.942 Million cell updates/sec

Title: US-10-089-485-4
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 184161 seqs, 31191982 residues

Word size : 1

Total number of hits satisfying chosen parameters: 184041

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Published_Applications_AA_New:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
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| 1 | 268 | 100.0 | 268 | 7 | US-11-134-703-4 | Sequence 4, Appli |
| 2 | 246 | 91.8 | 246 | 7 | US-11-134-703-10 | Sequence 10, Appl |
| 3 | 195 | 72.8 | 246 | 7 | US-11-134-703-12 | Sequence 12, Appl |
| 4 | 195 | 72.8 | 268 | 7 | US-11-134-703-18 | Sequence 18, Appl |
| 5 | 182 | 67.9 | 266 | 7 | US-11-238-936-15 | Sequence 15, Appl |
| 6 | 176 | 65.7 | 176 | 7 | US-11-134-703-6 | Sequence 6, Appli |
| 7 | 151 | 56.3 | 266 | 7 | US-11-238-936-9 | Sequence 9, Appli |
| 8 | 145 | 54.1 | 176 | 7 | US-11-134-703-8 | Sequence 8, Appli |
| 9 | 60 | 22.4 | 60 | 7 | US-11-134-703-19 | Sequence 19, Appl |
| 10 | 52 | 19.4 | 52 | 7 | US-11-134-703-37 | Sequence 37, Appl |
| 11 | 49 | 18.3 | 49 | 7 | US-11-134-703-38 | Sequence 38, Appl |
| 12 | 48 | 17.9 | 48 | 7 | US-11-134-703-36 | Sequence 36, Appl |
| 13 | 10 | 3.7 | 10 | 7 | US-11-134-703-32 | Sequence 32, Appl |
| 14 | 9 | 3.4 | 188 | 7 | US-11-087-099-8568 | Sequence 8568, Ap |
| 15 | 9 | 3.4 | 413 | 7 | US-11-096-568A-20771 | Sequence 20771, A |
| 16 | 9 | 3.4 | 446 | 6 | US-10-714-887-214 | Sequence 214, App |
| 17 | 8 | 3.0 | 10 | 7 | US-11-134-703-33 | Sequence 33, Appl |
| 18 | 8 | 3.0 | 153 | 7 | US-11-096-568A-5443 | Sequence 5443, Ap |
| 19 | 8 | 3.0 | 202 | 6 | US-10-793-626-1108 | Sequence 1108, Ap |
| 20 | 8 | 3.0 | 205 | 7 | US-11-238-936-8 | Sequence 8, Appli |
| 21 | 8 | 3.0 | 207 | 7 | US-11-238-936-10 | Sequence 10, Appl |
| 22 | 8 | 3.0 | 333 | 7 | US-11-096-568A-26084 | Sequence 26084, A |
| 23 | 8 | 3.0 | 384 | 7 | US-11-096-568A-33509 | Sequence 33509, A |
| 24 | 8 | 3.0 | 388 | 7 | US-11-096-568A-33508 | Sequence 33508, A |
| 25 | 8 | 3.0 | 396 | 7 | US-11-096-568A-33507 | Sequence 33507, A |
| 26 | 8 | 3.0 | 791 | 6 | US-10-821-234-962 | Sequence 962, App |
| 27 | 8 | 3.0 | 3969 | 6 | US-10-974-127A-59 | Sequence 59, Appl |
| 28 | 7 | 2.6 | 25 | 7 | US-11-058-735-61 | Sequence 61, Appl |
| 29 | 7 | 2.6 | 54 | 7 | US-11-150-054A-34 | Sequence 34, Appl |
| 30 | 7 | 2.6 | 98 | 6 | US-10-510-386-138 | Sequence 138, App |
| 31 | 7 | 2.6 | 110 | 7 | US-11-072-512-3422 | Sequence 3422, Ap |
| 32 | 7 | 2.6 | 112 | 7 | US-11-096-568A-7612 | Sequence 7612, Ap |
| 33 | 7 | 2.6 | 115 | 7 | US-11-004-399-2629 | Sequence 2629, Ap |
| 34 | 7 | 2.6 | 133 | 6 | US-10-523-362-22 | Sequence 22, Appl |
| 35 | 7 | 2.6 | 141 | 7 | US-11-096-568A-13393 | Sequence 13393, A |
| 36 | 7 | 2.6 | 163 | 7 | US-11-172-740-2378 | Sequence 2378, Ap |
| 37 | 7 | 2.6 | 164 | 7 | US-11-207-847-4 | Sequence 4, Appli |
| 38 | 7 | 2.6 | 176 | 7 | US-11-096-568A-7838 | Sequence 7838, Ap |
| 39 | 7 | 2.6 | 180 | 7 | US-11-096-568A-12758 | Sequence 12758, A |
| 40 | 7 | 2.6 | 186 | 7 | US-11-044-899-21 | Sequence 21, Appl |
| 41 | 7 | 2.6 | 186 | 7 | US-11-044-899-22 | Sequence 22, Appl |
| 42 | 7 | 2.6 | 186 | 7 | US-11-096-568A-17455 | Sequence 17455, A |
| 43 | 7 | 2.6 | 191 | 6 | US-10-991-285-873 | Sequence 873, App |
| 44 | 7 | 2.6 | 193 | 7 | US-11-238-936-11 | Sequence 11, Appl |
| 45 | 7 | 2.6 | 198 | 7 | US-11-096-568A-18593 | Sequence 18593, A |

ALIGNMENTS

RESULT 1
US-11-134-703-4
; Sequence 4, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
; APPLICANT: Hanada et al.
; TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
; FILE REFERENCE: 67015-05
; CURRENT APPLICATION NUMBER: US/11/134,703
; CURRENT FILING DATE: 2005-05-19
; PRIOR APPLICATION NUMBER: PCT/US2003/37065
; PRIOR FILING DATE: 2003-11-19
; PRIOR APPLICATION NUMBER: US 60/427,920
; PRIOR FILING DATE: 2002-11-19
; PRIOR APPLICATION NUMBER: US 10/089,485
; PRIOR FILING DATE: 2002-03-27
; PRIOR APPLICATION NUMBER: PCT/US00/26689
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/157,103
; PRIOR FILING DATE: 1999-10-02
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 4
; LENGTH: 268
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-134-703-4

Query Match 100.0%; Score 268; DB 7; Length 268;
Best Local Similarity 100.0%; Pred. No. 3.2e-247;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
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RESULT 2
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; Sequence 10, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 10
;   LENGTH: 246
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-10

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Qy        263 LKFRFG 268
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Db        241 LKFRFG 246


RESULT 3
US-11-134-703-12
; Sequence 12, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 12
;   LENGTH: 246
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-12

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Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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US-11-134-703-18
; Sequence 18, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 18
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-18

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Qy        223 EQPELSFTVTVPEKK 237
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Db        223 EQPELSFTVTVPEKK 237


RESULT 5
US-11-238-936-15
; Sequence 15, Application US/11238936
; Publication No. US20060025343A1
; GENERAL INFORMATION:
;  APPLICANT: Whitehouse, Martha J.
;  APPLICANT:  Kavanaugh, Michael W.
;  TITLE OF INVENTION: Angiogenically Effective Unit Dose of FGF and Method of
;  TITLE OF INVENTION:  Administering
;  FILE REFERENCE: 1296/12169US05
;  CURRENT APPLICATION NUMBER: US/11/238,936
;  CURRENT FILING DATE:  2005-09-29
;  PRIOR APPLICATION NUMBER: US/09/417,721
;  PRIOR FILING DATE: 1999-10-13
;  PRIOR APPLICATION NUMBER: 60/104,103
;  PRIOR FILING DATE: 1998-10-13
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
;   LENGTH: 266
;   TYPE: PRT
;   ORGANISM: Human FGF-5
US-11-238-936-15

  Query Match             67.9%;  Score 182;  DB 7;  Length 266;
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Qy        147 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 206
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Qy        207 KPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFR 266
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Db        205 KPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFR 264

Qy        267 FG 268
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Db        265 FG 266


RESULT 6
US-11-134-703-6
; Sequence 6, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 6
;   LENGTH: 176
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-6

  Query Match             65.7%;  Score 176;  DB 7;  Length 176;
  Best Local Similarity   100.0%;  Pred. No. 6.7e-160;
  Matches  176;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         93 CRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHA 152
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHA 60

Qy        153 SAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 212
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 120

Qy        213 THFLPRFKQSEQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 THFLPRFKQSEQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 176


RESULT 7
US-11-238-936-9
; Sequence 9, Application US/11238936
; Publication No. US20060025343A1
; GENERAL INFORMATION:
;  APPLICANT: Whitehouse, Martha J.
;  APPLICANT:  Kavanaugh, Michael W.
;  TITLE OF INVENTION: Angiogenically Effective Unit Dose of FGF and Method of
;  TITLE OF INVENTION:  Administering
;  FILE REFERENCE: 1296/12169US05
;  CURRENT APPLICATION NUMBER: US/11/238,936
;  CURRENT FILING DATE:  2005-09-29
;  PRIOR APPLICATION NUMBER: US/09/417,721
;  PRIOR FILING DATE: 1999-10-13
;  PRIOR APPLICATION NUMBER: 60/104,103
;  PRIOR FILING DATE: 1998-10-13
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9
;   LENGTH: 266
;   TYPE: PRT
;   ORGANISM: Human FGF-5
US-11-238-936-9

  Query Match             56.3%;  Score 151;  DB 7;  Length 266;
  Best Local Similarity   100.0%;  Pred. No. 5.8e-136;
  Matches  151;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         87 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 146
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         85 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 144

Qy        147 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 206
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        145 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 204

Qy        207 KPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||
Db        205 KPQHISTHFLPRFKQSEQPELSFTVTVPEKK 235


RESULT 8
US-11-134-703-8
; Sequence 8, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
```

```
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 8
;   LENGTH: 176
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-8

  Query Match             54.1%;  Score 145;  DB 7;  Length 176;
  Best Local Similarity   100.0%;  Pred. No. 2e-130;
  Matches  145;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         93 CRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHA 152
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHA 60

Qy        153 SAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 212
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 120

Qy        213 THFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||
Db        121 THFLPRFKQSEQPELSFTVTVPEKK 145


RESULT 9
US-11-134-703-19
; Sequence 19, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 19
;   LENGTH: 60
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-19

  Query Match             22.4%;  Score 60;  DB 7;  Length 60;
  Best Local Similarity   100.0%;  Pred. No. 5.1e-50;
  Matches   60;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        161 KFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 220
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 KFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 60


RESULT 10
US-11-134-703-37
; Sequence 37, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 37
;   LENGTH: 52
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Variant peptide sequence.
US-11-134-703-37

  Query Match             19.4%;  Score 52;  DB 7;  Length 52;
  Best Local Similarity   100.0%;  Pred. No. 1.8e-42;
  Matches   52;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        161 KFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 212
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 KFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 52


RESULT 11
US-11-134-703-38
; Sequence 38, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 38
;   LENGTH: 49
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Variant peptide sequence.
US-11-134-703-38
```

```
  Query Match            18.3%;  Score 49;  DB 7;  Length 49;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-39;
  Matches   49;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        172 NTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 220
              |||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 NTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 49


RESULT 12
US-11-134-703-36
; Sequence 36, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 36
;   LENGTH: 48
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Variant peptide sequence.
US-11-134-703-36

  Query Match            17.9%;  Score 48;  DB 7;  Length 48;
  Best Local Similarity   100.0%;  Pred. No. 1.1e-38;
  Matches   48;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        173 TYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 220
              ||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 TYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 48


RESULT 13
US-11-134-703-32
; Sequence 32, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 32
;   LENGTH: 10
;   TYPE: PRT
;   ORGANISM: homo sapiens
US-11-134-703-32

  Query Match             3.7%;  Score 10;  DB 7;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 0.0035;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        117 MLSVLEIFAV 126
              ||||||||||
Db          1 MLSVLEIFAV 10


RESULT 14
US-11-087-099-8568
; Sequence 8568, Application US/11087099
; Publication No. US20060041961A1
; GENERAL INFORMATION:
;  APPLICANT: Abad, Mark S. et al.
;  TITLE OF INVENTION: Genes and Uses for Plant Improvement
;  FILE REFERENCE: 38-21(53450)B EP
;  CURRENT APPLICATION NUMBER: US/11/087,099
;  CURRENT FILING DATE:  2005-03-22
;  NUMBER OF SEQ ID NOS: 12464
; SEQ ID NO 8568
;   LENGTH: 188
;   TYPE: PRT
;   ORGANISM: Sorghum bicolor
US-11-087-099-8568

  Query Match             3.4%;  Score 9;  DB 7;  Length 188;
  Best Local Similarity   100.0%;  Pred. No. 0.46;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         58 SASSSPAAS 66
              |||||||||
Db        114 SASSSPAAS 122


RESULT 15
US-11-096-568A-20771
; Sequence 20771, Application US/11096568A
; Publication No. US20060048240A1
; GENERAL INFORMATION:
;  APPLICANT: Alexandrov, Nickolai et al.
;  TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
;  TITLE OF INVENTION:  Therby
;  FILE REFERENCE: 2750-1592PUS2
;  CURRENT APPLICATION NUMBER: US/11/096,568A
;  CURRENT FILING DATE:  2005-04-01
;  NUMBER OF SEQ ID NOS: 34471
; SEQ ID NO 20771
;   LENGTH: 413
;   TYPE: PRT
;   ORGANISM: Zea mays subsp. mays
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (1)..(413)
;   OTHER INFORMATION: Ceres Seq. ID no. 12387083
US-11-096-568A-20771

  Query Match             3.4%;  Score 9;  DB 7;  Length 413;
  Best Local Similarity   100.0%;  Pred. No. 0.94;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSSP 63
              |||||||||
Db        243 SSSSASSSP 251


Search completed: April 11, 2006, 03:46:10
Job time : 9.5 secs
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GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:36:56 ; Search time 13 Seconds
(without alignments)
1983.546 Million cell updates/sec

Title: US-10-089-485-4
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283416 seqs, 96216763 residues

Word size : 1

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : PIR_80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 182 | 67.9 | 267 | 1 | TVHUF5 | fibroblast growth |
| 2 | 90 | 33.6 | 264 | 2 | A36207 | fibroblast growth |
| 3 | 90 | 33.6 | 266 | 2 | S68144 | fibroblast growth |
| 4 | 39 | 14.6 | 121 | 2 | S68145 | fibroblast growth |
| 5 | 10 | 3.7 | 109 | 2 | S69307 | probable membrane |
| 6 | 9 | 3.4 | 143 | 2 | T22906 | hypothetical prote |
| 7 | 9 | 3.4 | 979 | 2 | T01566 | hypothetical prote |
| 8 | 8 | 3.0 | 153 | 2 | S67294 | hypothetical prote |
| 9 | 8 | 3.0 | 202 | 1 | TVMSHS | fibroblast growth |
| 10 | 8 | 3.0 | 206 | 1 | TVHUHS | fibroblast growth |
| 11 | 8 | 3.0 | 206 | 2 | JC4268 | fibroblast growth |
| 12 | 8 | 3.0 | 208 | 2 | S20102 | fibroblast growth |
| 13 | 8 | 3.0 | 208 | 2 | S14192 | fibroblast growth |
| 14 | 8 | 3.0 | 225 | 2 | B84653 | TINY-like AP2 doma |
| 15 | 8 | 3.0 | 229 | 2 | JC7219 | nuclear protein SR |
| 16 | 8 | 3.0 | 238 | 2 | S77699 | inner cell wall ma |
| 17 | 8 | 3.0 | 238 | 2 | D84585 | hypothetical prote |
| 18 | 8 | 3.0 | 262 | 2 | T40941 | hypothetical serin |
| 19 | 8 | 3.0 | 264 | 2 | D96694 | hypothetical prote |
| 20 | 8 | 3.0 | 268 | 2 | C84585 | hypothetical prote |
| 21 | 8 | 3.0 | 270 | 2 | F86170 | GBF4 [imported] - |
| 22 | 8 | 3.0 | 299 | 2 | T52452 | ATP-dependent Clp |
| 23 | 8 | 3.0 | 325 | 2 | H96815 | hypothetical prote |
| 24 | 8 | 3.0 | 354 | 2 | S39406 | homeotic protein o |
| 25 | 8 | 3.0 | 391 | 2 | S61704 | probable transcrip |
| 26 | 8 | 3.0 | 396 | 2 | T26987 | hypothetical prote |
| 27 | 8 | 3.0 | 412 | 2 | S30299 | Krox-20 protein - |
| 28 | 8 | 3.0 | 419 | 2 | T49292 | hypothetical prote |
| 29 | 8 | 3.0 | 429 | 2 | A47305 | translation initia |
| 30 | 8 | 3.0 | 431 | 2 | T12450 | hypothetical prote |
| 31 | 8 | 3.0 | 459 | 2 | A88712 | protein C17H12.9 [ |
| 32 | 8 | 3.0 | 472 | 2 | T04699 | hypothetical prote |
| 33 | 8 | 3.0 | 484 | 2 | S66713 | hypothetical prote |
| 34 | 8 | 3.0 | 490 | 2 | A32140 | steroid 15beta-mon |
| 35 | 8 | 3.0 | 559 | 1 | RWBYS1 | glycophospholipid- |
| 36 | 8 | 3.0 | 600 | 2 | S07638 | spore coat protein |
| 37 | 8 | 3.0 | 640 | 1 | QQBEU2 | UL35 protein - hum |
| 38 | 8 | 3.0 | 640 | 2 | S62747 | homeotic protein A |
| 39 | 8 | 3.0 | 661 | 2 | T16597 | hypothetical prote |
| 40 | 8 | 3.0 | 717 | 2 | T25431 | hypothetical prote |
| 41 | 8 | 3.0 | 741 | 2 | I48694 | probable transcrip |
| 42 | 8 | 3.0 | 742 | 2 | A49672 | transcription fact |
| 43 | 8 | 3.0 | 772 | 2 | A55004 | transcription fact |
| 44 | 8 | 3.0 | 775 | 1 | EDBE11 | immediate-early pr |
| 45 | 8 | 3.0 | 825 | 1 | EDBEXD | immediate-early pr |

ALIGNMENTS

RESULT 1
TVHUF5
fibroblast growth factor 5 - human
N;Alternate names: transforming protein FGF5
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_change 09-Jul-2004
C;Accession: A31194
R;Zhan, X.; Bates, B.; Hu, X.; Goldfarb, M.
Mol. Cell. Biol. 8, 3487-3495, 1988
A;Title: The human FGF-5 oncogene encodes a novel protein related to fibroblast growth f
A;Reference number: A31194; MUID:89096942; PMID:3211147
A;Accession: A31194
A;Molecule type: mRNA
A;Residues: 1-267 <ZHA>
A;Cross-references: UNIPROT:P12034; UNIPARC:UPI00000462BB; GB:M23536; GB:M21617; NID:g18
C;Genetics:
A;Gene: GDB:FGF5
A;Cross-references: GDB:119907; OMIM:165190
A;Map position: 4q21-4q21
C;Superfamily: fibroblast growth factor
C;Keywords: growth factor; transforming protein

Query Match 67.9%; Score 182; DB 1; Length 267;
Best Local Similarity 100.0%; Pred. No. 1.6e-169;
Matches 182; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         87 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 146
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         86 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 145

Qy        147 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 206
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        146 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 205

Qy        207 KPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFR 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        206 KPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFR 265

Qy        267 FG 268
              ||
Db        266 FG 267
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RESULT 2
A36207
fibroblast growth factor 5 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 28-Mar-1991 #sequence_revision 28-Mar-1991 #text_change 09-Jul-2004
C;Accession: A36207; B37360
R;Haub, O.; Drucker, B.; Goldfarb, M.
Proc. Natl. Acad. Sci. U.S.A. 87, 8022-8026, 1990
A;Title: Expression of the murine fibroblast growth factor 5 gene in the adult central n

```
A;Reference number: A36207; MUID:91045929; PMID:1700424
A;Accession: A36207
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-264 <HAU>
A;Cross-references: UNIPROT:P15656; UNIPARC:UPI0000003F7B; GB:M37821; GB:M37822; GB:M378
R;Hebert, J.M.; Basilico, C.; Goldfarb, M.; Haub, O.; Martin, G.R.
Dev. Biol. 138, 454-463, 1990
A;Title: Isolation of cDNAs encoding four mouse FGF family members and characterization
A;Reference number: A37360; MUID:90201563; PMID:2318343
A;Accession: B37360
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-264 <HEB>
A;Cross-references: UNIPARC:UPI0000003F7B; GB:M30643; NID:g193294; PIDN:AAA96698.1; PID:
C;Superfamily: fibroblast growth factor

  Query Match             33.6%;  Score 90;  DB 2;  Length 264;
  Best Local Similarity   100.0%;  Pred. No. 8.8e-80;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 178

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 210
              ||||||||||||||||||||||||||||||
Db        179 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 208


RESULT 3
S68144
fibroblast growth factor 5 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S68144
R;Hattori, Y.; Yamasaki, M.; Itoh, N.
Biochim. Biophys. Acta 1306, 31-33, 1996
A;Title: The rat FGF-5 mRNA variant generated by alternative splicing encodes a novel tr
A;Reference number: S68144; MUID:96201703; PMID:8611621
A;Accession: S68144
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-266 <HAT>
A;Cross-references: UNIPROT:P48807; UNIPARC:UPI000012A716; EMBL:D64085; NID:g992952; PID
C;Superfamily: fibroblast growth factor

  Query Match             33.6%;  Score 90;  DB 2;  Length 266;
  Best Local Similarity   100.0%;  Pred. No. 8.8e-80;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 178

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 210
              ||||||||||||||||||||||||||||||
Db        179 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 208


RESULT 4
S68145
fibroblast growth factor 5, truncated splice form - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S68145
R;Hattori, Y.; Yamasaki, M.; Itoh, N.
Biochim. Biophys. Acta 1306, 31-33, 1996
A;Title: The rat FGF-5 mRNA variant generated by alternative splicing encodes a novel tr
A;Reference number: S68144; MUID:96201703; PMID:8611621
A;Accession: S68145
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-121 <HAT>
A;Cross-references: UNIPROT:P48807; UNIPARC:UPI000002A98F; EMBL:D64086; NID:g987689; PID
C;Keywords: alternative splicing

  Query Match             14.6%;  Score 39;  DB 2;  Length 121;
  Best Local Similarity   100.0%;  Pred. No. 2.6e-30;
  Matches   39;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         77 SSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEA 115
              |||||||||||||||||||||||||||||||||||||||
Db         75 SSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEA 113


RESULT 5
S69307
probable membrane protein YLR294c - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein L8003.19-a
C;Species: Saccharomyces cerevisiae
C;Date: 20-Jul-1996 #sequence_revision 23-Aug-1996 #text_change 09-Jul-2004
C;Accession: S69307
R;Pauley, A.
submitted to the EMBL Data Library, November 1994
A;Description: The sequence of S. cerevisiae cosmid 8003.
A;Reference number: S50366
A;Accession: S69307
A;Molecule type: DNA
A;Residues: 1-109 <PAU>
A;Cross-references: UNIPROT:O13543; UNIPARC:UPI000004F949; EMBL:U17243; NID:g596030; PID
C;Genetics:
A;Gene: MIPS:YLR294c
A;Cross-references: SGD:S0004285
A;Map position: 12R
C;Superfamily: Saccharomyces probable membrane protein YLR294c
C;Keywords: transmembrane protein
F;77-93/Domain: transmembrane #status predicted <TMM>

  Query Match              3.7%;  Score 10;  DB 2;  Length 109;
  Best Local Similarity   100.0%;  Pred. No. 0.046;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 SLSFLLLLFF 11
              ||||||||||
Db         82 SLSFLLLLFF 91


RESULT 6
T22906
hypothetical protein F58D12.1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T22906
R;Percy, C.
submitted to the EMBL Data Library, October 1996
A;Reference number: Z19635
A;Accession: T22906
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-143 <WIL>
A;Cross-references: UNIPROT:O02276; UNIPARC:UPI00000753E8; EMBL:Z81092; PIDN:CAB03144.1,
A;Experimental source: clone F58D12
C;Genetics:
A;Gene: CESP:F58D12.1
A;Map position: 5
A;Introns: 14/1; 38/2; 75/1; 90/3

  Query Match              3.4%;  Score 9;  DB 2;  Length 143;
  Best Local Similarity   100.0%;  Pred. No. 0.54;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         56 SSSASSSPA 64
              |||||||||
Db         53 SSSASSSPA 61
```

```
RESULT 7
T01566
hypothetical protein A_TM018A10.23 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 19-Feb-1999 #sequence_revision 19-Feb-1999 #text_change 09-Jul-2004
C;Accession: T01566
R;Dempsey, S.; Harper, M.
submitted to the EMBL Data Library, July 1997
A;Description: The sequence of A. thaliana TM018A10.
A;Reference number: Z14348
A;Accession: T01566
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-979 <DEM>
A;Cross-references: UNIPROT:O23096; UNIPARC:UPI000009EB61; EMBL:AF013294; NID:g2252848;
A;Experimental source: cultivar Columbia
C;Genetics:
A;Map position: 4
A;Introns: 466/3; 569/3; 649/3; 688/1; 740/3; 877/3
A;Note: A_TM018A10.23
C;Superfamily: Arabidopsis thaliana hypothetical protein A_TM018A10.23

  Query Match             3.4%;  Score 9;  DB 2;  Length 979;
  Best Local Similarity   100.0%;  Pred. No. 2.6;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSSP 63
              |||||||||
Db         37 SSSSASSSP 45


RESULT 8
S67294
hypothetical protein YOR382w - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein O6760
C;Species: Saccharomyces cerevisiae
C;Date: 12-Jul-1996 #sequence_revision 12-Jul-1996 #text_change 09-Jul-2004
C;Accession: S67294
R;Delius, H.; Hebling, U.; Hofmann, B.
submitted to the Protein Sequence Database, July 1996
A;Reference number: S67261
A;Accession: S67294
A;Molecule type: DNA
A;Residues: 1-153 <DEL>
A;Cross-references: UNIPROT:Q08906; UNIPARC:UPI000004F973; EMBL:Z75290; NID:g1420822; PI
A;Experimental source: strain S288C
C;Genetics:
A;Gene: SGD:FIT2; MIPS:YOR382w
A;Cross-references: SGD:S0005909
A;Map position: 15R

  Query Match             3.0%;  Score 8;  DB 2;  Length 153;
  Best Local Similarity   100.0%;  Pred. No. 5.4;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSS 62
              ||||||||
Db        122 SSSSASSS 129


RESULT 9
TVMSHS
fibroblast growth factor 4 - mouse
N;Alternate names: transforming protein hstf1; transforming protein k-FGF; transforming
C;Species: Mus musculus (house mouse)
C;Date: 31-Mar-1991 #sequence_revision 31-Mar-1991 #text_change 09-Jul-2004
C;Accession: S04741; A37360
R;Brookes, S.; Smith, R.; Thurlow, J.; Dickson, C.; Peters, G.
Nucleic Acids Res. 17, 4037-4045, 1989
A;Title: The mouse homologue of hst/k-FGF: sequence, genome organization and location re
A;Reference number: S04741; MUID:89296455; PMID:2740210
A;Accession: S04741
A;Molecule type: DNA
A;Residues: 1-202 <BRO>
A;Cross-references: UNIPROT:P11403; UNIPARC:UPI0000027966; GB:X14849; GB:M28516; NID:g52
R;Hebert, J.M.; Basilico, C.; Goldfarb, M.; Haub, O.; Martin, G.R.
Dev. Biol. 138, 454-463, 1990
A;Title: Isolation of cDNAs encoding four mouse FGF family members and characterization
A;Reference number: A37360; MUID:90201563; PMID:2318343
A;Accession: A37360
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-166,'S',168-202 <HEB>
A;Cross-references: UNIPARC:UPI000000415D; GB:M30642; NID:g193290; PIDN:AAA37619.1; PID:
C;Genetics:
A;Gene: hst
C;Superfamily: fibroblast growth factor
C;Keywords: growth factor; transforming protein

  Query Match             3.0%;  Score 8;  DB 1;  Length 202;
  Best Local Similarity   100.0%;  Pred. No. 6.8;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 VGIGFHLQ 102
              ||||||||
Db         86 VGIGFHLQ 93


RESULT 10
TVHUHS
fibroblast growth factor 4 - human
N;Alternate names: heparin secretory transforming protein 1; Kaposi sarcoma oncogene; t
C;Species: Homo sapiens (man)
C;Date: 31-Mar-1989 #sequence_revision 31-Mar-1989 #text_change 09-Jul-2004
C;Accession: A28417; A29876; A29649
R;Yoshida, T.; Miyagawa, K.; Odagiri, H.; Sakamoto, H.; Little, P.F.R.; Terada, M.; Sug
Proc. Natl. Acad. Sci. U.S.A. 84, 7305-7309, 1987
A;Title: Genomic sequence of hst, a transforming gene encoding a protein homologous to f
A;Reference number: A28417; MUID:88041096; PMID:2959959
A;Accession: A28417
A;Molecule type: DNA
A;Residues: 1-206 <YOS>
A;Cross-references: UNIPROT:P08620; UNIPARC:UPI0000040662; DDBJ:J02986; NID:g184430; PID
R;Taira, M.; Yoshida, T.; Miyagawa, K.; Sakamoto, H.; Terada, M.; Sugimura, T.
Proc. Natl. Acad. Sci. U.S.A. 84, 2980-2984, 1987
A;Title: cDNA sequence of human transforming gene hst and identification of the coding s
A;Reference number: A29876; MUID:87204251; PMID:2953031
A;Accession: A29876
A;Molecule type: mRNA
A;Residues: 1-206 <TAI>
A;Cross-references: UNIPARC:UPI0000040662; GB:J02986; GB:M16338; NID:g184430; PIDN:AAB59
R;Delli Bovi, P.; Curatola, A.M.; Kern, F.G.; Greco, A.; Ittmann, M.; Basilico, C.
Cell 50, 729-737, 1987
A;Title: An oncogene isolated by transfection of Kaposi's sarcoma DNA encodes a growth f
A;Reference number: A29649; MUID:87301716; PMID:2957062
A;Accession: A29649
A;Molecule type: mRNA
A;Residues: 1-206 <BOV>
A;Cross-references: UNIPARC:UPI0000040662; GB:M17446; NID:g186785; PIDN:AAA59473.1; PID:
C;Comment: This protein is an oncogene for Kaposi's sarcoma. It is homologous to the mou
C;Genetics:
A;Gene: GDB:FGF4; HSTF1
A;Cross-references: GDB:120066; OMIM:164980
A;Map position: 11q13.3-11q13.3
A;Introns: 114/1; 148/3
C;Superfamily: fibroblast growth factor
C;Keywords: growth factor; Kaposi sarcoma; transforming protein

  Query Match             3.0%;  Score 8;  DB 1;  Length 206;
  Best Local Similarity   100.0%;  Pred. No. 6.9;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 VGIGFHLQ 102
              ||||||||
Db         90 VGIGFHLQ 97
```

RESULT 11
JC4268
fibroblast growth factor 4 - bovine
N;Alternate names: transforming protein hst
C;Species: Bos primigenius taurus (cattle)
C;Date: 10-Nov-1995 #sequence_revision 08-Feb-1996 #text_change 17-Mar-2000
C;Accession: JC4268
R;Yu, J.C.; DeSeabra, A.J.J.; Wang, L.M.; Fleming, T.P.; Chedid, M.; Miki, T.; Heidaran,
Gene 162, 333-334, 1995
A;Title: An unexpected transforming gene in calf-thymus carrier DNA: Bovine hst.
A;Reference number: JC4268; MUID:96032369; PMID:7557455
A;Accession: JC4268
A;Molecule type: mRNA
A;Residues: 1-206 <YUJ>
A;Cross-references: UNIPARC:UPI0000176539; GB:U15969
A;Note: The authors translated the codon GGC for residue 114 as Ser
C;Comment: This protein is a member of fibroblast growth factor family. The hstgene in c
C;Genetics:
A;Gene: hst
A;Introns: 113/3; 145/2
C;Superfamily: fibroblast growth factor
C;Keywords: thymus; transforming protein

Query Match 3.0%; Score 8; DB 2; Length 206;
Best Local Similarity 100.0%; Pred. No. 6.9;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 95 VGIGFHLQ 102
||||||||
Db 90 VGIGFHLQ 97

RESULT 12
S20102
fibroblast growth factor 6 precursor - human
N;Alternate names: fibroblast growth factor-related protein FGF.6; transforming protein
C;Species: Homo sapiens (man)
C;Date: 18-Feb-1994 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004
C;Accession: S20102; S23739; S04204; S36910
R;Coulier, F.; Batoz, M.; Marics, I.; de Lapeyriere, O.; Birnbaum, D.
Oncogene 6, 1437-1444, 1991
A;Title: Putative structure of the FGF6 gene product and role of the signal peptide.
A;Reference number: S20102; MUID:91360279; PMID:1886714
A;Accession: S20102
A;Status: not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-208 <COU>
A;Cross-references: UNIPROT:P10767; UNIPARC:UPI00000411BF; EMBL:X57075
A;Note: it is uncertain whether Met-1, Met-11 or Met-34 is the initiator
R;Iida, S.; Yoshida, T.; Naito, K.; Sakamoto, H.; Katoh, O.; Hirohashi, S.; Sato, T.; On
Oncogene 7, 303-309, 1992
A;Title: Human hst-2 (FGF-6) oncogene: cDNA cloning and characterization.
A;Reference number: S23739; MUID:92195660; PMID:1549352
A;Accession: S23739
A;Molecule type: mRNA
A;Residues: 1-208 <IID>
A;Cross-references: UNIPARC:UPI00000411BF; EMBL:X63454
A;Note: it is uncertain whether Met-1 or Met-11 is the initiator
R;Marics, I.; Adelaide, J.; Raybaud, F.; Mattei, M.G.; Coulier, F.; Planche, J.; de Lape
Oncogene 4, 335-340, 1989
A;Title: Characterization of the HST-related FGF.6 gene, a new member of the fibroblast
A;Reference number: S04204; MUID:89201880; PMID:2649847
A;Accession: S04204
A;Molecule type: DNA
A;Residues: 81-99,'G',101-208 <MAR>
A;Cross-references: UNIPARC:UPI000016A8F6; EMBL:X14071; NID:g31354; PIDN:CAB37648.2; PID
C;Genetics:
A;Gene: GDB:FGF6; hst-2
A;Cross-references: GDB:119908; OMIM:134921
A;Map position: 12p13-12p13
A;Introns: 115/3; 150/2
C;Superfamily: fibroblast growth factor
F;1-40/Domain: (or 11-40 or 34-40) signal sequence #status predicted <SIG>
F;41-208/Product: fibroblast growth factor 6 #status predicted <MAT>

Query Match 3.0%; Score 8; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 6.9;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 95 VGIGFHLQ 102
||||||||
Db 92 VGIGFHLQ 99

RESULT 13
S14192
fibroblast growth factor 6 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 21-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C;Accession: S14192; I49665; I49664
R;de Lapeyriere, O.; Rosnet, O.; Benharroch, D.; Raybaud, F.; Marchetto, S.; Planche, J.
Oncogene 5, 823-831, 1990
A;Title: Structure, chromosome mapping and expression of the murine Fgf-6 gene.
A;Reference number: S14192; MUID:90295275; PMID:2193291
A;Accession: S14192
A;Molecule type: DNA
A;Residues: 1-208 <LAP>
A;Cross-references: UNIPROT:P21658; UNIPARC:UPI0000020A67; EMBL:X51552
A;Note: it is uncertain whether Met-1 or Met-11 is the initiator
R;Ollendorff, V.; Rosnet, O.; Marics, I.; Birnbaum, D.; deLapeyriere, O.
Biochimie 74, 1035-1038, 1992
A;Title: Isolation and sequence of the murine Fgf6 cDNA.
A;Reference number: I49664; MUID:93120244; PMID:1477139
A;Accession: I49665
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 19-208 <RES>
A;Cross-references: UNIPARC:UPI000016CD51; GB:M92416; NID:g193288; PIDN:AAA62261.1; PID:
A;Accession: I49664
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-18 <RE2>
A;Cross-references: UNIPARC:UPI000016CD50; GB:M92415; NID:g193286; PIDN:AAA62260.1; PID
C;Genetics:
A;Gene: Fgf6
A;Introns: 116/1; 150/3
C;Superfamily: fibroblast growth factor

Query Match 3.0%; Score 8; DB 2; Length 208;
Best Local Similarity 100.0%; Pred. No. 6.9;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 95 VGIGFHLQ 102
||||||||
Db 92 VGIGFHLQ 99

RESULT 14
B84653
TINY-like AP2 domain transcription factor [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004
C;Accession: B84653
R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.;
M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, L
euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, J
Nature 402, 761-768, 1999
A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
A;Reference number: A84420; MUID:20083487; PMID:10617197
A;Accession: B84653
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-225 <STO>
A;Cross-references: UNIPROT:O82315; UNIPARC:UPI0000179899; GB:AE002093; NID:g3643601; PI

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C;Genetics:
A;Gene: At2g25820
A;Map position: 2

  Query Match             3.0%;  Score 8;  DB 2;  Length 225;
  Best Local Similarity   100.0%;  Pred. No. 7.4;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSS 62
              ||||||||
Db        140 SSSSASSS 147


RESULT 15
JC7219
nuclear protein SR-25 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 09-Jun-2000 #sequence_revision 09-Jun-2000 #text_change 09-Jul-2004
C;Accession: JC7219
R;Sasahara, K.; Yamaoka, T.; Moritani, M.; Tanaka, M.; Iwahana, H.; Yoshimoto, K.; Miyag
Biochem. Biophys. Res. Commun. 269, 444-450, 2000
A;Title: Molecular cloning and expression analysis of a putative nuclear protein, SR-25.
A;Reference number: JC7219; MUID:20175222; PMID:10708573
A;Accession: JC7219
A;Molecule type: mRNA
A;Residues: 1-229 <SAS>
A;Cross-references: UNIPROT:Q9JM93; UNIPARC:UPI00000231C4; DDBJ:AB035383; NID:g7619895;
A;Experimental source: MIN6 cell line
C;Comment: This protein is a highly hydrophilic nuclear protein with a serine-arginine r
A splicing factors.
C;Keywords: nucleus; RNA processing

  Query Match             3.0%;  Score 8;  DB 2;  Length 229;
  Best Local Similarity   100.0%;  Pred. No. 7.5;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSS 62
              ||||||||
Db         77 SSSSASSS 84


Search completed: April 11, 2006, 03:38:26
Job time : 13 secs
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GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:43:16 ; Search time 60.5 Seconds
(without alignments)
1850.880 Million cell updates/sec

Title: US-10-089-485-4
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1867569 seqs, 417829326 residues

Word size : 1

Total number of hits satisfying chosen parameters: 1866650

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : Published_Applications_AA_Main:*
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 268 | 100.0 | 268 | 3 | US-09-284-663A-10 | Sequence 10, Appl |
| 2 | 268 | 100.0 | 268 | 3 | US-09-750-963-11 | Sequence 11, Appl |
| 3 | 268 | 100.0 | 268 | 3 | US-09-902-773A-7 | Sequence 7, Appli |
| 4 | 268 | 100.0 | 268 | 3 | US-09-251-263-12 | Sequence 12, Appl |
| 5 | 268 | 100.0 | 268 | 4 | US-10-081-347-33 | Sequence 33, Appl |
| 6 | 268 | 100.0 | 268 | 4 | US-10-189-360-14 | Sequence 14, Appl |
| 7 | 268 | 100.0 | 268 | 4 | US-10-192-988-8 | Sequence 8, Appli |
| 8 | 268 | 100.0 | 268 | 4 | US-10-315-431-33 | Sequence 33, Appl |
| 9 | 268 | 100.0 | 268 | 4 | US-10-347-177-11 | Sequence 11, Appl |
| 10 | 268 | 100.0 | 268 | 4 | US-10-372-653-11 | Sequence 11, Appl |
| 11 | 268 | 100.0 | 268 | 4 | US-10-037-922-33 | Sequence 33, Appl |
| 12 | 268 | 100.0 | 268 | 5 | US-10-854-485-33 | Sequence 33, Appl |
| 13 | 268 | 100.0 | 268 | 5 | US-10-413-537-10 | Sequence 10, Appl |
| 14 | 226 | 84.3 | 268 | 3 | US-09-345-373-15 | Sequence 15, Appl |
| 15 | 226 | 84.3 | 268 | 4 | US-10-075-446-15 | Sequence 15, Appl |
| 16 | 226 | 84.3 | 268 | 4 | US-10-035-212-15 | Sequence 15, Appl |
| 17 | 226 | 84.3 | 268 | 5 | US-10-733-311-15 | Sequence 15, Appl |
| 18 | 226 | 84.3 | 268 | 5 | US-10-868-577A-27 | Sequence 27, Appl |
| 19 | 226 | 84.3 | 268 | 5 | US-10-901-210-15 | Sequence 15, Appl |
| 20 | 198 | 73.9 | 269 | 4 | US-10-192-988-18 | Sequence 18, Appl |
| 21 | 182 | 67.9 | 247 | 4 | US-10-023-592-9 | Sequence 9, Appli |
| 22 | 182 | 67.9 | 266 | 4 | US-10-131-965-15 | Sequence 15, Appl |
| 23 | 182 | 67.9 | 267 | 3 | US-09-822-485-8 | Sequence 8, Appli |
| 24 | 182 | 67.9 | 267 | 3 | US-09-425-021-13 | Sequence 13, Appl |
| 25 | 182 | 67.9 | 267 | 4 | US-10-023-592-7 | Sequence 7, Appli |
| 26 | 182 | 67.9 | 267 | 4 | US-10-374-207-8 | Sequence 8, Appli |
| 27 | 182 | 67.9 | 267 | 4 | US-10-123-481-7 | Sequence 7, Appli |
| 28 | 182 | 67.9 | 267 | 5 | US-10-935-226-7 | Sequence 7, Appli |
| 29 | 182 | 67.9 | 267 | 5 | US-10-932-284-7 | Sequence 7, Appli |
| 30 | 172 | 64.2 | 219 | 4 | US-10-016-447-13 | Sequence 13, Appl |
| 31 | 151 | 56.3 | 266 | 4 | US-10-131-965-9 | Sequence 9, Appli |
| 32 | 151 | 56.3 | 268 | 4 | US-10-690-019-14 | Sequence 14, Appl |
| 33 | 144 | 53.7 | 144 | 3 | US-09-901-938-27 | Sequence 27, Appl |
| 34 | 144 | 53.7 | 144 | 4 | US-10-379-334-27 | Sequence 27, Appl |
| 35 | 51 | 19.0 | 82 | 3 | US-09-801-968-39 | Sequence 39, Appl |
| 36 | 51 | 19.0 | 82 | 3 | US-09-802-154-39 | Sequence 39, Appl |
| 37 | 11 | 4.1 | 173 | 4 | US-10-767-701-41558 | Sequence 41558, A |
| 38 | 11 | 4.1 | 287 | 4 | US-10-425-114-59971 | Sequence 59971, A |
| 39 | 10 | 3.7 | 10 | 3 | US-09-572-404B-3798 | Sequence 3798, Ap |
| 40 | 10 | 3.7 | 10 | 3 | US-09-572-404B-3799 | Sequence 3799, Ap |
| 41 | 10 | 3.7 | 109 | 4 | US-10-451-467A-282 | Sequence 282, App |
| 42 | 10 | 3.7 | 359 | 4 | US-10-437-963-187082 | Sequence 187082, |
| 43 | 10 | 3.7 | 502 | 6 | US-11-097-143-23466 | Sequence 23466, A |
| 44 | 9 | 3.4 | 9 | 4 | US-10-424-955A-36 | Sequence 36, Appl |
| 45 | 9 | 3.4 | 9 | 5 | US-10-982-514-37 | Sequence 37, Appl |

ALIGNMENTS

RESULT 1
US-09-284-663A-10
; Sequence 10, Application US/09284663A
; Patent No. US20020012961A1
; GENERAL INFORMATION:
; APPLICANT: Botstein, David A.
; APPLICANT: Goddard, Audrey
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth J.
; APPLICANT: Lawrence, David A.
; APPLICANT: Roy, Margaret Ann
; TITLE OF INVENTION: Fibroblast Growth Factor-19
; FILE REFERENCE: P1219R1(e)
; CURRENT APPLICATION NUMBER: US/09/284,663A
; CURRENT FILING DATE: 1999-04-15
; NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 10
; LENGTH: 268
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-284-663A-10

Query Match 100.0%; Score 268; DB 3; Length 268;
Best Local Similarity 100.0%; Pred. No. 4.3e-240;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
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Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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RESULT 2
US-09-750-963-11
; Sequence 11, Application US/09750963

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; Patent No. US20020031805A1
; GENERAL INFORMATION:
;  APPLICANT:  Conklin, Darrell C.
;  TITLE OF INVENTION:  NOVEL FGF HOMOLOG ZFGF10
;  FILE REFERENCE:  99-83
;  CURRENT APPLICATION NUMBER: US/09/750,963
;  CURRENT FILING DATE:  2000-12-28
;  PRIOR APPLICATION NUMBER:  US 60/173,578
;  PRIOR FILING DATE:  1999-12-29
;  NUMBER OF SEQ ID NOS:  15
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 11
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-750-963-11

  Query Match             100.0%;  Score 268;  DB 3;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
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Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
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Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 3
US-09-902-773A-7
; Sequence 7, Application US/09902773A
; Patent No. US20020034787A1
;   GENERAL INFORMATION:
;        APPLICANT: HU, JING-SHAN
;                   GOCAYNE, JEANNINE D.
;        TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR-10
;        NUMBER OF SEQUENCES: 14
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX
;             STREET: 1100 NEW YORK AVENUE, SUITE 600
;             CITY: WASHINGTON
;             STATE: DC
;             COUNTRY: US
;             ZIP: 20005-3934
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/902,773A
;             FILING DATE: 12-Jul-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/803,926
;             FILING DATE: 21-FEB-1997
;        ATTORNEY/AGENT INFORMATION:
;             NAME: STEFFE, ERIC K.
;             REGISTRATION NUMBER: 36,688
;             REFERENCE/DOCKET NUMBER: 1488.0350001
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (202) 371-2600
;             TELEFAX: (202) 371-2540
;   INFORMATION FOR SEQ ID NO: 7:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 268 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 7:
US-09-902-773A-7

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  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
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Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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RESULT 4
US-09-251-263-12
; Sequence 12, Application US/09251263
; Patent No. US20020052477A1
; GENERAL INFORMATION:
;  APPLICANT: Nathans, Jeremy
;  APPLICANT: Smallwood, Philip M.
;  APPLICANT: Macke, Jennifer P.
;  TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR HOMOLOGOUS
;  TITLE OF INVENTION: FACTOR-1 (FHF-1) AND METHODS OF USE
;  FILE REFERENCE: 07265/047003
;  CURRENT APPLICATION NUMBER: US/09/251,263
;  CURRENT FILING DATE: 1999-02-16
;  EARLIER APPLICATION NUMBER: 08/867,471
;  EARLIER FILING DATE: 1997-06-02
;  EARLIER APPLICATION NUMBER: 08/439,725
;  EARLIER FILING DATE: 1995-05-12
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-251-263-12

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  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 5
US-10-081-347-33
; Sequence 33, Application US/10081347
; Publication No. US20030008351A1
; GENERAL INFORMATION:
;  APPLICANT: Deisher, Theresa A.
;  APPLICANT:  Conklin, Darrell C.
;  APPLICANT:  Raymond, Fenella
;  APPLICANT:  Bukowski, Thomas R.
;  APPLICANT:  Holderman, Susan D.
;  APPLICANT:  Hansen, Birgit
;  APPLICANT:  Sheppard, Paul O.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20C1
;  CURRENT APPLICATION NUMBER: US/10/081,347
;  CURRENT FILING DATE:  2002-02-21
;  PRIOR APPLICATION NUMBER: US/09/229,947
;  PRIOR FILING DATE: 1999-01-13
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-081-347-33

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  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 6
US-10-189-360-14
; Sequence 14, Application US/10189360
; Publication No. US20030143217A1
;   GENERAL INFORMATION:
;        APPLICANT: Baird, J. Andrew
;                   Chandler, Lois Ann
;                   Sosnowski, Barbara A.
;        TITLE OF INVENTION: COMPOSITIONS CONTAINING NUCLEIC ACIDS AND LIGANDS
;                            FOR THERAPE
;        NUMBER OF SEQUENCES: 128
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: SEED and BERRY LLP
;             STREET: 6300 Columbia Center, 701 Fifth Avenue
;             CITY: Seattle
;             STATE: Washington
;             COUNTRY: USA
;             ZIP: 98104-7092
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/189,360
;             FILING DATE: 02-Jul-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/718,904
;             FILING DATE: 24-SEP-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: No. US20030143217A1tenburg Ph.D., Carol
;             REGISTRATION NUMBER: 39,317
;             REFERENCE/DOCKET NUMBER: 760100.415C1
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (206) 622-4900
;             TELEFAX: (206) 682-6031
;   INFORMATION FOR SEQ ID NO: 14:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 268 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: unknown
;        MOLECULE TYPE: peptide
;        FEATURE:
;             OTHER INFORMATION:  /note= "FGF-5"
;        SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-10-189-360-14

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RESULT 7
US-10-192-988-8
; Sequence 8, Application US/10192988
; Publication No. US20030166875A1
; GENERAL INFORMATION:
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;  APPLICANT: THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE
;  APPLICANT:  NATHANS, Jeremy
;  APPLICANT:  SMALLWOOD, Philip M.
;  APPLICANT:  MACKE, Jennifer P.
;  TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR HOMOLOGOUS FACTOR-2 AND METHODS OF USE
;  FILE REFERENCE: JHU1230-2
;  CURRENT APPLICATION NUMBER: US/10/192,988
;  CURRENT FILING DATE:  2002-07-10
;  PRIOR APPLICATION NUMBER: US 09/261,007
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: US 08/438,439
;  PRIOR FILING DATE: 1995-05-12
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 8
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Unknown
;   FEATURE:
;   OTHER INFORMATION: Mammalian
US-10-192-988-8

  Query Match             100.0%;  Score 268;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
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Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
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Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
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Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
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Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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RESULT 8
US-10-315-431-33
; Sequence 33, Application US/10315431
; Publication No. US20030199443A1
; GENERAL INFORMATION:
;  APPLICANT: Ellsworth, Jeff L.
;  APPLICANT:  Deisher, Theresa A.
;  APPLICANT:  Hughes, Steven D.
;  APPLICANT:  Moore, Emma E.
;  APPLICANT:  Wahl, Alan F.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20C4
;  CURRENT APPLICATION NUMBER: US/10/315,431
;  CURRENT FILING DATE:  2002-12-09
;  PRIOR APPLICATION NUMBER: US/09/634,318
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-315-431-33

  Query Match             100.0%;  Score 268;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 9
US-10-347-177-11
; Sequence 11, Application US/10347177
; Publication No. US20030220483A1
; GENERAL INFORMATION:
;  APPLICANT: THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE
;  APPLICANT:  Nathans, Jeremy
;  APPLICANT:  Smallwood, Philip M.
;  APPLICANT:  Macke, Jennifer P.
;  TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR HOMOLOGOUS FACTOR-1 (FHF-1) AND METHODS
;  FILE REFERENCE: JHU1240-3
;  CURRENT APPLICATION NUMBER: US/10/347,177
;  CURRENT FILING DATE:  2003-01-16
;  PRIOR APPLICATION NUMBER: US 09/251,263
;  PRIOR FILING DATE: 1999-02-16
;  PRIOR APPLICATION NUMBER: US 08/867,471
;  PRIOR FILING DATE: 1997-06-02
;  PRIOR APPLICATION NUMBER: US 08/439,725
;  PRIOR FILING DATE: 1995-05-12
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-347-177-11

  Query Match             100.0%;  Score 268;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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RESULT 10
US-10-372-653-11
; Sequence 11, Application US/10372653
; Publication No. US20040048271A1
; GENERAL INFORMATION:
;  APPLICANT: Alderson, Ralph et al.
;  TITLE OF INVENTION: Fibroblast Growth Factor 11
;  FILE REFERENCE: PF184P1D1
;  CURRENT APPLICATION NUMBER: US/10/372,653
;  CURRENT FILING DATE:  2003-02-25
;  PRIOR APPLICATION NUMBER: 09/572,406
;  PRIOR FILING DATE: 2000-05-16
;  PRIOR APPLICATION NUMBER: 60/135,524
;  PRIOR FILING DATE: 1999-05-21
;  PRIOR APPLICATION NUMBER: 09/514,587
;  PRIOR FILING DATE: 2000-02-28
;  PRIOR APPLICATION NUMBER: 09/093,585
;  PRIOR FILING DATE: 1998-06-08
;  PRIOR APPLICATION NUMBER: 08/464,590
;  PRIOR FILING DATE: 1995-06-05
;  NUMBER OF SEQ ID NOS: 28
;  SOFTWARE: PatentIn Ver. 3.1
; SEQ ID NO 11
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-372-653-11

  Query Match            100.0%;  Score 268;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 11
US-10-037-922-33
; Sequence 33, Application US/10037922
; Publication No. US20040096936A1
; GENERAL INFORMATION:
;  APPLICANT: Deisher, Theresa A.
;  APPLICANT:  Conklin, Darrell C.
;  APPLICANT:  Raymond, Fenella
;  APPLICANT:  Bukowski, Thomas R.
;  APPLICANT:  Holderman, Susan D.
;  APPLICANT:  Hansen, Birgit
;  APPLICANT:  Sheppard, Paul O.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20
;  CURRENT APPLICATION NUMBER: US/10/037,922
;  CURRENT FILING DATE:  2001-10-19
;  PRIOR APPLICATION NUMBER: 08/951,822
;  PRIOR FILING DATE: 1997-10-16
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-037-922-33

  Query Match            100.0%;  Score 268;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 12
US-10-854-485-33
; Sequence 33, Application US/10854485
; Publication No. US20050043234A1
; GENERAL INFORMATION:
;  APPLICANT: Deisher, Theresa A.
;  APPLICANT:  Conklin, Darrell C.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20C7
;  CURRENT APPLICATION NUMBER: US/10/854,485
;  CURRENT FILING DATE:  2004-05-26
;  PRIOR APPLICATION NUMBER: 10/315,431
;  PRIOR FILING DATE: 2002-12-09
;  PRIOR APPLICATION NUMBER: 10/081,347
;  PRIOR FILING DATE: 2002-02-21
;  PRIOR APPLICATION NUMBER: 09/634,318
;  PRIOR FILING DATE: 2000-08-09
;  PRIOR APPLICATION NUMBER: 09/613,708
;  PRIOR FILING DATE: 2000-07-11
;  PRIOR APPLICATION NUMBER: 09/574,750
;  PRIOR FILING DATE: 2000-05-18
;  PRIOR APPLICATION NUMBER: 09/229,947
;  PRIOR FILING DATE: 1999-01-13
;  PRIOR APPLICATION NUMBER: 08/951,822
;  PRIOR FILING DATE: 1997-10-16
;  PRIOR APPLICATION NUMBER: 60/028,646
;  PRIOR FILING DATE: 1996-10-16
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-854-485-33

  Query Match            100.0%;  Score 268;  DB 5;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
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              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
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Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 13
US-10-413-537-10
; Sequence 10, Application US/10413537
; Publication No. US20050196842A1
; GENERAL INFORMATION:
;  APPLICANT: Botstein, David A.
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Lawrence, David A.
;  APPLICANT:  Roy, Margaret Ann
;  TITLE OF INVENTION: Polypeptides Sharing Sequence Identity With A Fibroblast Growth
;  TITLE OF INVENTION:  Factor Polypeptide and Nucleic Acids Encoding The Same
;  FILE REFERENCE: P1219R1EC1
;  CURRENT APPLICATION NUMBER: US/10/413,537
;  CURRENT FILING DATE:  2003-04-11
;  PRIOR APPLICATION NUMBER: US 09/284,663
;  PRIOR FILING DATE: 1999-04-15
;  PRIOR APPLICATION NUMBER: US 09/158,342
;  PRIOR FILING DATE: 1998-09-21
;  PRIOR APPLICATION NUMBER: PCT/US98/25190
;  PRIOR FILING DATE: 1998-11-25
;  PRIOR APPLICATION NUMBER: 60/066,840
;  PRIOR FILING DATE: 1997-11-25
;  NUMBER OF SEQ ID NOS: 30
; SEQ ID NO 10
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-413-537-10

  Query Match             100.0%;  Score 268;  DB 5;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.3e-240;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 14
US-09-345-373-15
; Sequence 15, Application US/09345373
; Publication No. US20030077695A1
; GENERAL INFORMATION:
;    APPLICANT:  RUBEN, STEVEN M.
;    APPLICANT:  JIMENEZ, PABLO
;    APPLICANT:  DUAN, D. ROXANNE
;    APPLICANT:  RAMPY, MARK A.
;    APPLICANT:  MENDRICK, DONNA
;    APPLICANT:  ZHANG, JUN
;    APPLICANT:  NI, JIAN
;    APPLICANT:  MOORE, PAUL A.
;    APPLICANT:  COLEMAN, TIMOTHY A.
;    APPLICANT:  GRUBER, JOACHIM R.
;    APPLICANT:  DILLON, PATRICK J.
;    APPLICANT:  GENTZ, REINER L.
;    TITLE OF INVENTION:  KERATINOCYTE GROWTH FACTOR-2
;    NUMBER OF SEQUENCES:  148
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
;      STREET:  1100 NEW YORK AVE, NW, SUITE 600
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20005-3934
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/345,373
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/023,082
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/461,195
;      FILING DATE:  05-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/023,852
;      FILING DATE:  13-AUG-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/039,045
;      FILING DATE:  28-FEB-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/862,432
;      FILING DATE:  23-MAY-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/910,875
;      FILING DATE:  13-AUG-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/055,561
;      FILING DATE:  13-AUG-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
;      REFERENCE/DOCKET NUMBER:  1488.0360008/EKS
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-371-2600
;      TELEFAX:  202-371-2540
;  INFORMATION FOR SEQ ID NO:  15:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  No. US20030077695A1 Relevant
;      TOPOLOGY:  No. US20030077695A1 Relevant
;    MOLECULE TYPE:  protein
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US-09-345-373-15

  Query Match             84.3%;  Score 226;  DB 3;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.1e-201;
  Matches  226;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy         223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
               |||||||||||||||||||||||||||||||||||||||||||||||
Db         223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 15
US-10-075-446-15
; Sequence 15, Application US/10075446
; Publication No. US20030129687A1
;   GENERAL INFORMATION:
;        APPLICANT: RUBEN, STEVEN M.
;                   JIMENEZ, PABLO
;                   DUAN, D. ROXANNE
;                   RAMPY, MARK A.
;                   MENDRICK, DONNA
;                   ZHANG, JUN
;                   NI, JIAN
;                   MOORE, PAUL A.
;                   COLEMAN, TIMOTHY A.
;                   GRUBER, JOACHIM R.
;        TITLE OF INVENTION: KERATINOCYTE GROWTH FACTOR-2
;        NUMBER OF SEQUENCES: 148
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
;             STREET: 1100 NEW YORK AVE, NW, SUITE 600
;             CITY: WASHINGTON
;             STATE: DC
;             COUNTRY: USA
;             ZIP: 20005-3934
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/075,446
;             FILING DATE: 15-Feb-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 09/023,082
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US95/01790
;             FILING DATE: 14-FEB-1995
;             APPLICATION NUMBER: US 08/461,195
;             FILING DATE: 05-JUN-1995
;             APPLICATION NUMBER: US 60/023,852
;             FILING DATE: 13-AUG-1996
;             APPLICATION NUMBER: US 60/039,045
;             FILING DATE: 28-FEB-1997
;             APPLICATION NUMBER: US 08/862,432
;             FILING DATE: 23-MAY-1997
;             APPLICATION NUMBER: US 08/910,875
;             FILING DATE: 13-AUG-1997
;             APPLICATION NUMBER: US 60/055,561
;             FILING DATE: 13-AUG-1997
;        ATTORNEY/AGENT INFORMATION:
;             NAME: STEFFFE, ERIC K.
;             REGISTRATION NUMBER: 36,688
;             REFERENCE/DOCKET NUMBER: 1488.0360008/EKS
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 202-371-2600
;             TELEFAX: 202-371-2540
;   INFORMATION FOR SEQ ID NO: 15:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 268 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: No. US20030129687A1 Relevant
;             TOPOLOGY: No. US20030129687A1 Relevant
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 15:
US-10-075-446-15

  Query Match             84.3%;  Score 226;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.1e-201;
  Matches  226;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy         223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
               |||||||||||||||||||||||||||||||||||||||||||||||
Db         223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


Search completed: April 11, 2006, 03:45:46
Job time : 61.5 secs
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GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:33:26 ; Search time 73 Seconds
(without alignments)
2590.159 Million cell updates/sec

Title: US-10-089-485-4
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 2166443 seqs, 705528306 residues

Word size : 1

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 226 | 84.3 | 268 | 1 | FGF5_HUMAN | P12034 homo sapien |
| 2 | 195 | 72.8 | 268 | 2 | Q8NF90_HUMAN | Q8nf90 homo sapien |
| 3 | 94 | 35.1 | 125 | 2 | Q8NBG6_HUMAN | Q8nbg6 homo sapien |
| 4 | 90 | 33.6 | 264 | 1 | FGF5_MOUSE | P15656 mus musculu |
| 5 | 90 | 33.6 | 266 | 1 | FGF5_RAT | P48807 rattus norv |
| 6 | 77 | 28.7 | 129 | 2 | Q6A549_HUMAN | Q6a549 homo sapien |
| 7 | 60 | 22.4 | 153 | 2 | Q8SQ73_CANFA | Q8sq73 canis famil |
| 8 | 30 | 11.2 | 99 | 2 | Q6XK01_RABIT | Q6xk01 oryctolagus |
| 9 | 27 | 10.1 | 79 | 2 | Q6XK00_RABIT | Q6xk00 oryctolagus |
| 10 | 21 | 7.8 | 225 | 2 | Q5TLE2_BRARE | Q5tle2 brachydanio |
| 11 | 19 | 7.1 | 230 | 2 | Q4RPQ6_TETNG | Q4rpq6 tetraodon n |
| 12 | 16 | 6.0 | 87 | 2 | Q8WN07_CANFA | Q8wn07 canis famil |
| 13 | 10 | 3.7 | 109 | 2 | O13543_YEAST | O13543 saccharomyc |
| 14 | 10 | 3.7 | 349 | 2 | Q7Y0C1_ORYSA | Q7y0c1 oryza sativ |
| 15 | 10 | 3.7 | 418 | 2 | Q54TY7_DICDI | Q54ty7 dictyosteli |
| 16 | 10 | 3.7 | 420 | 2 | O76853_DICDI | O76853 dictyosteli |
| 17 | 10 | 3.7 | 702 | 2 | Q9V356_DROME | Q9v356 drosophila |
| 18 | 10 | 3.7 | 706 | 2 | Q8SZH3_DROME | Q8szh3 drosophila |
| 19 | 10 | 3.7 | 706 | 2 | Q86BR3_DROME | Q86br3 drosophila |
| 20 | 9 | 3.4 | 140 | 2 | Q851P2_ORYSA | Q851p2 oryza sativ |
| 21 | 9 | 3.4 | 143 | 2 | O02276_CAEEL | O02276 caenorhabdi |
| 22 | 9 | 3.4 | 168 | 2 | Q9JI73_MOUSE | Q9ji73 mus musculu |
| 23 | 9 | 3.4 | 188 | 2 | Q8S444_SORBI | Q8s444 sorghum bic |
| 24 | 9 | 3.4 | 209 | 2 | Q5MFQ8_DICLA | Q5mfq8 dicentrarch |
| 25 | 9 | 3.4 | 482 | 2 | Q7S0U9_NEUCR | Q7s0u9 neurospora |
| 26 | 9 | 3.4 | 492 | 2 | Q4QBT7_LEIMA | Q4qbt7 leishmania |
| 27 | 9 | 3.4 | 492 | 2 | Q8BSD5_MOUSE | Q8bsd5 mus musculu |
| 28 | 9 | 3.4 | 495 | 2 | Q5VZ18_HUMAN | Q5vz18 homo sapien |
| 29 | 9 | 3.4 | 526 | 2 | Q9ZRH9_ORYSA | Q9zrh9 oryza sativ |
| 30 | 9 | 3.4 | 540 | 2 | Q650Z7_ORYSA | Q650z7 oryza sativ |
| 31 | 9 | 3.4 | 553 | 2 | Q7TML6_MOUSE | Q7tml6 mus musculu |
| 32 | 9 | 3.4 | 565 | 2 | Q6Z9D7_ORYSA | Q6z9d7 oryza sativ |
| 33 | 9 | 3.4 | 648 | 2 | Q6ZEY3_ORYSA | Q6zey3 oryza sativ |
| 34 | 9 | 3.4 | 712 | 2 | Q6FWG1_CANGA | Q6fwg1 candida gla |
| 35 | 9 | 3.4 | 719 | 2 | Q6DJ90_XENTR | Q6dj90 xenopus tro |
| 36 | 9 | 3.4 | 745 | 2 | Q86NY8_DROME | Q86ny8 drosophila |
| 37 | 9 | 3.4 | 749 | 2 | Q8DAV3_VIBVU | Q8dav3 vibrio vuln |
| 38 | 9 | 3.4 | 749 | 2 | Q7MJ05_VIBVY | Q7mj05 vibrio vuln |
| 39 | 9 | 3.4 | 751 | 1 | KLHL1_MOUSE | Q9ji74 mus musculu |
| 40 | 9 | 3.4 | 751 | 2 | Q8CCY1_MOUSE | Q8ccy1 mus musculu |
| 41 | 9 | 3.4 | 751 | 2 | Q505E9_MOUSE | Q505e9 mus musculu |
| 42 | 9 | 3.4 | 758 | 2 | Q5DTX3_MOUSE | Q5dtx3 mus musculu |
| 43 | 9 | 3.4 | 860 | 2 | Q6CJJ8_KLULA | Q6cjj8 kluyveromyc |
| 44 | 9 | 3.4 | 863 | 2 | Q51IK1_MAGGR | Q51ik1 magnaporthe |
| 45 | 9 | 3.4 | 979 | 2 | O23096_ARATH | O23096 arabidopsis |

ALIGNMENTS

RESULT 1
FGF5_HUMAN
ID FGF5_HUMAN STANDARD; PRT; 268 AA.
AC P12034; O75846;
DT 01-OCT-1989 (Rel. 12, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 13-SEP-2005 (Rel. 48, Last annotation update)
DE Fibroblast growth factor 5 precursor (FGF-5) (HBGF-5) (Smag-82).
GN Name=FGF5;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE (ISOFORM LONG).
RC TISSUE=Brain stem;
RX MEDLINE=91045929; PubMed=1700424;
RA Haub O., Drucker B., Goldfarb M.;
RT "Expression of the murine fibroblast growth factor 5 gene in the adult
RT central nervous system.";
RL Proc. Natl. Acad. Sci. U.S.A. 87:8022-8026(1990).
RN [2]
RP NUCLEOTIDE SEQUENCE (ISOFORM LONG).
RX MEDLINE=89096942; PubMed=3211147;
RA Zhan X., Bates B., Hu X., Goldfarb M.;
RT "The human FGF-5 oncogene encodes a novel protein related to
RT fibroblast growth factors.";
RL Mol. Cell. Biol. 8:3487-3495(1988).
RN [3]
RP NUCLEOTIDE SEQUENCE (ISOFORM SHORT).
RA Ozawa K., Suzuki S., Asada M., Tomooka Y., Li A., Yoneda A., Komi A.,
RA Imamura T.;
RT "An alternatively-spliced FGF-5 mRNA is abundant in brain and
RT translates into a partial agonist/antagonist for FGF-5 neurotrophic
RT activity.";
RL Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.
RN [4]
RP NUCLEOTIDE SEQUENCE (ISOFORM SHORT).
RC TISSUE=Umbilical artery;
RX MEDLINE=20379035; PubMed=10823842; DOI=10.1074/jbc.M910099199;
RA de Vries C.J.M., van Achterberg T.A.E., Horrevoets A.J.G.,
RA ten Cate J.W., Pannekoek H.;
RT "Differential display identification of 40 genes with altered
RT expression in activated human smooth muscle cells. Local expression in
RT atherosclerotic lesions of smags, smooth muscle activation-specific
RT genes.";
RL J. Biol. Chem. 275:23939-23947(2000).
CC -!- FUNCTION: This oncogene is expressed in neonatal brain. FGF-5 can
CC transform NIH 3T3 cells.
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=2;
CC Name=Long;
CC IsoId=P12034-1; Sequence=Displayed;

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CC       Name=Short; Synonyms=FGF-5S;
CC         IsoId=P12034-2; Sequence=VSP_001518, VSP_001519;
CC   -!- SIMILARITY: Belongs to the heparin-binding growth factors family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; M37825; AAB06463.1; -; mRNA.
DR   EMBL; M23536; AAB60699.1; -; Genomic_DNA.
DR   EMBL; M23534; AAB60699.1; JOINED; Genomic_DNA.
DR   EMBL; M23535; AAB60699.1; JOINED; Genomic_DNA.
DR   EMBL; M23534; AAB60698.1; ALT_SEQ; Genomic_DNA.
DR   EMBL; AB016517; BAA33738.1; -; mRNA.
DR   EMBL; AF171928; AAF89742.1; -; mRNA.
DR   PIR; A31194; TVHUF5.
DR   HSSP; P08620; 1IJT.
DR   Ensembl; ENSG00000138675; Homo sapiens.
DR   HGNC; HGNC:3683; FGF5.
DR   MIM; 165190; -.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   GO; GO:0008283; P:cell proliferation; TAS.
DR   GO; GO:0007267; P:cell-cell signaling; TAS.
DR   GO; GO:0008543; P:fibroblast growth factor receptor signaling. . .; TAS.
DR   GO; GO:0007399; P:neurogenesis; TAS.
DR   InterPro; IPR002209; GF_heparin_bd.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Alternative splicing; Glycoprotein; Growth factor; Mitogen;
KW   Proto-oncogene; Signal.
FT   SIGNAL        1     17       Potential.
FT   CHAIN        18    268       Fibroblast growth factor 5.
FT   COMPBIAS     49     52       Poly-Ser.
FT   COMPBIAS     55     62       Poly-Ser.
FT   CARBOHYD    110    110       N-linked (GlcNAc. . .) (Potential).
FT   VARSPLIC    120    123       VLEI -> QVHR (in isoform Short).
FT                                /FTId=VSP_001518.
FT   VARSPLIC    124    268       Missing (in isoform Short).
FT                                /FTId=VSP_001519.
FT   CONFLICT     42     42       R -> I (in Ref. 1).
FT   CONFLICT     83     86       PSGR -> LGA (in Ref. 2).
SQ   SEQUENCE   268 AA;  29527 MW;  08F4268B26781E9D CRC64;

  Query Match             84.3%;  Score 226;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-212;
  Matches  226;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Db         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy        223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||||||||||||||||||||
Db        223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 2
Q8NF90_HUMAN
ID   Q8NF90_HUMAN PRELIMINARY;      PRT;   268 AA.
AC   Q8NF90;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE   Fibroblast growth factor 5, isoform 1.
GN   Name=FGF5;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=21347229; PubMed=11454700;
RA   Hanada K.-I., Perry-Lalley D.M., Ohnmacht G.A., Bettinotti M.P.,
RA   Yang J.C.;
RT   "Identification of fibroblast growth factor-5 as an overexpressed
RT   antigen in multiple human adenocarcinomas.";
RL   Cancer Res. 61:5511-5516(2001).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RA   Hanada K.-I., Yang J.C.;
RL   Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Lung;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Lung;
RA   Director MGC Project;
RL   Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF535149; AAN04097.1; -; mRNA.
DR   EMBL; BC074858; AAH74858.1; -; mRNA.
DR   EMBL; BC074859; AAH74859.1; -; mRNA.
DR   HSSP; P08620; 1IJT.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002209; HB/F_growthfact.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; UNKNOWN_1.
KW   Growth factor.
SQ   SEQUENCE   268 AA;  29551 MW;  28B7268B26781BCF CRC64;

  Query Match             72.8%;  Score 195;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 3e-182;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Db         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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Db         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy         223 EQPELSFTVTVPEKK 237
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Db         223 EQPELSFTVTVPEKK 237
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RESULT 3
Q8NBG6_HUMAN
ID   Q8NBG6_HUMAN PRELIMINARY;      PRT;   125 AA.
AC   Q8NBG6;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Hypothetical protein FLJ33238.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   PubMed=14702039; DOI=10.1038/ng1285;
RA   Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R.,
RA   Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H.,
RA   Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S.,
RA   Yamamoto J.-I., Saito K., Kawai Y., Isono Y., Nakamura Y.,
RA   Nagahari K., Murakami K., Yasuda T., Iwayanagi T., Wagatsuma M.,
RA   Shiratori A., Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H.,
RA   Sugawara M., Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E.,
RA   Omura Y., Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M.,
RA   Yamazaki M., Ninomiya K., Ishibashi T., Yamashita H., Murakawa K.,
RA   Fujimori K., Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y.,
RA   Ishida S., Ono Y., Takiguchi S., Watanabe S., Yosida M., Hotuta T.,
RA   Kusano J., Kanehori K., Takahashi-Fujii A., Hara H., Tanase T.-O.,
RA   Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M.,
RA   Imose N., Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S.,
RA   Yoshikawa Y., Matsunawa H., Ichihara T., Shiohata N., Sano S.,
RA   Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O.,
RA   Nakagawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H.,
RA   Hishigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B.,
RA   Yamazaki M., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y.,
RA   Fujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T.,
RA   Ono T., Yamada K., Fujii Y., Ozaki K., Hirao M., Ohmori Y.,
RA   Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S.,
RA   Okitani R., Kawakami T., Noguchi S., Itoh T., Shigeta K., Senba T.,
RA   Matsumura K., Nakajima Y., Mizuno T., Morinaga M., Sasaki M.,
RA   Togashi T., Oyama M., Hata H., Watanabe M., Komatsu T.,
RA   Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA   Okumura K., Nagase T., Nomura N., Kikuchi H., Masuho Y., Yamashita R.,
RA   Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.;
RT   "Complete sequencing and characterization of 21,243 full-length human
RT   cDNAs.";
RL   Nat. Genet. 36:40-45(2004).
DR   EMBL; AK090557; BAC03477.1; -; mRNA.
DR   HSSP; Q02195; 1QQK.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; UNKNOWN_1.
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SQ   SEQUENCE   125 AA;  14536 MW;  EDBB5B1C85B6BBCE CRC64;

  Query Match             35.1%;  Score 94;  DB 2;  Length 125;
  Best Local Similarity   100.0%;  Pred. No. 1.6e-83;
  Matches   94;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         144 MSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCS 203
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Db           1 MSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCS 60

Qy         204 PRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
               |||||||||||||||||||||||||||||||||
Db          61 PRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 94
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RESULT 4
FGF5_MOUSE
ID   FGF5_MOUSE     STANDARD;      PRT;   264 AA.
AC   P15656; O88825;
DT   01-APR-1990 (Rel. 14, Created)
DT   01-APR-1990 (Rel. 14, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Fibroblast growth factor 5 precursor (FGF-5) (HBGF-5).
GN   Name=Fgf5; Synonyms=Fgf-5;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE (ISOFORM LONG).
RX   MEDLINE=90201563; PubMed=2318343;
RA   Hebert J.M., Basilico C., Goldfarb M., Haub O., Martin G.R.;
RT   "Isolation of cDNAs encoding four mouse FGF family members and
RT   characterization of their expression patterns during embryogenesis.";
RL   Dev. Biol. 138:454-463(1990).
RN   [2]
RP   NUCLEOTIDE SEQUENCE (ISOFORM LONG).
RC   STRAIN=C57BL/6;
RX   MEDLINE=91045929; PubMed=1700424;
RA   Haub O., Drucker B., Goldfarb M.;
RT   "Expression of the murine fibroblast growth factor 5 gene in the adult
RT   central nervous system.";
RL   Proc. Natl. Acad. Sci. U.S.A. 87:8022-8026(1990).
RN   [3]
RP   NUCLEOTIDE SEQUENCE (ISOFORM SHORT).
RX   MEDLINE=99003286; PubMed=9786939; DOI=10.1074/jbc.273.44.29262;
RA   Ozawa K., Suzuki S., Asada M., Tomooka Y., Li A.J., Yoneda A.,
RA   Komi A., Imamura T.;
RT   "An alternatively spliced fibroblast growth factor (FGF)-5 mRNA is
RT   abundant in brain and translates into a partial agonist/antagonist for
RT   FGF-5 neurotrophic activity.";
RL   J. Biol. Chem. 273:29262-29271(1998).
RN   [4]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM LONG).
RC   STRAIN=C57BL/6J; TISSUE=Skin;
RX   MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
RA   Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA   Nikaido I., Osato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA   Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,
RA   Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA   Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA   Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA   Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA   Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA   Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA   Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA   Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA   Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA   Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA   Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA   Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA   Sandelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
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RA   Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA   Verardo R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C.,
RA   Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang L.,
RA   Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA   Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA   Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA   Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA   Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A.,
RA   Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA   Birney E., Hayashizaki Y.;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
RN   [5]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM LONG).
RC   STRAIN=C57BL/6J; TISSUE=Embryo;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Long;
CC         IsoId=P15656-1; Sequence=Displayed;
CC       Name=Short; Synonyms=FGP-5S;
CC         IsoId=P15656-2; Sequence=VSP_001520, VSP_001521;
CC   -!- SIMILARITY: Belongs to the heparin-binding growth factors family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; M30643; AAA96698.1; -; mRNA.
DR   EMBL; M37823; AAB02660.1; -; Genomic_DNA.
DR   EMBL; M37821; AAB02660.1; JOINED; Genomic_DNA.
DR   EMBL; M37822; AAB02660.1; JOINED; Genomic_DNA.
DR   EMBL; M37821; AAB02659.1; ALT_SEQ; Genomic_DNA.
DR   EMBL; AB016516; BAA33737.1; -; mRNA.
DR   EMBL; AK028694; BAC26069.1; -; mRNA.
DR   EMBL; AK028894; BAC26179.1; -; mRNA.
DR   EMBL; BC071227; AAH71227.1; -; mRNA.
DR   PIR; A36207; A36207.
DR   HSSP; P08620; 1IJT.
DR   Ensembl; ENSMUSG00000029337; Mus musculus.
DR   MGI; MGI:95519; Fgf5.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   GO; GO:0010001; P:glial cell differentiation; IMP.
DR   InterPro; IPR002209; GF_heparin_bd.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Alternative splicing; Glycoprotein; Growth factor; Mitogen;
KW   Proto-oncogene; Signal.
FT   SIGNAL        1     17       Potential.
FT   CHAIN        18    264       Fibroblast growth factor 5.
FT   COMPBIAS     53     59       Poly-Ser.
FT   CARBOHYD    108    108       N-linked (GlcNAc. . .) (Potential).
FT   VARSPLIC    118    121       ILEI -> QIYG (in isoform Short).
FT                                /FTId=VSP_001520.
FT   VARSPLIC    122    264       Missing (In isoform Short).
FT                                /FTId=VSP_001521.
SQ   SEQUENCE   264 AA;  29103 MW;  F6A9C8153EE923D1 CRC64;

  Query Match             33.6%;  Score 90;  DB 1;  Length 264;
  Best Local Similarity   100.0%;  Pred. No. 2.6e-79;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 178

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 210
              ||||||||||||||||||||||||||||||
Db        179 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 208


RESULT 5
FGF5_RAT
ID   FGF5_RAT       STANDARD;      PRT;   266 AA.
AC   P48807; Q63402;
DT   01-FEB-1996 (Rel. 33, Created)
DT   01-FEB-1996 (Rel. 33, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Fibroblast growth factor 5 precursor (FGF-5) (HBGF-5).
GN   Name=Fgf5; Synonyms=Fgf-5;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   NUCLEOTIDE SEQUENCE (ISOFORMS LONG AND SHORT).
RC   STRAIN=Wistar;
RX   MEDLINE=96201703; PubMed=8611621; DOI=10.1016/0167-4781(19)60001-1;
RA   Hattori Y., Yamasaki M., Itoh N.;
RT   "The rat FGF-5 mRNA variant generated by alternative splicing encodes
RT   a novel truncated form of FGF-5.";
RL   Biochim. Biophys. Acta 1306:31-33(1996).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Long;
CC         IsoId=P48807-1; Sequence=Displayed;
CC       Name=Short; Synonyms=FGF-5S;
CC         IsoId=P48807-2; Sequence=VSP_001522, VSP_001523;
CC   -!- SIMILARITY: Belongs to the heparin-binding growth factors family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; D64085; BAA10966.1; -; mRNA.
DR   EMBL; D64086; BAA10967.1; -; mRNA.
DR   PIR; S68144; S68144.
DR   PIR; S68145; S68145.
DR   HSSP; P08620; 1IJT.
DR   Ensembl; ENSRNOG00000022631; Rattus norvegicus.
DR   RGD; 620129; Fgf5.
DR   GO; GO:0008083; F:growth factor activity; IDA.
DR   GO; GO:0005163; F:nerve growth factor receptor binding; TAS.
DR   GO; GO:0008283; P:cell proliferation; IDA.
DR   InterPro; IPR002209; GF_heparin_bd.
DR   InterPro; IPR002348; IL1_HBGF.
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DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Alternative splicing; Glycoprotein; Growth factor; Mitogen;
KW   Proto-oncogene; Signal.
FT   SIGNAL        1     17       Potential.
FT   CHAIN        18    266       Fibroblast growth factor 5.
FT   COMPBIAS     54     59       Poly-Ser.
FT   CARBOHYD    108    108       N-linked (GlcNAc. . .) (Potential).
FT   VARSPLIC    118    121       ILEI -> QIYR (in isoform Short).
FT                                /FTId=VSP_001522.
FT   VARSPLIC    122    266       Missing (in isoform Short).
FT                                /FTId=VSP_001523.
SQ   SEQUENCE   266 AA;  29264 MW;  95B0A0CA7C0A200C CRC64;

  Query Match             33.6%;  Score 90;  DB 1;  Length 266;
  Best Local Similarity   100.0%;  Pred. No. 2.6e-79;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 178

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 210
              ||||||||||||||||||||||||||||||
Db        179 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 208


RESULT 6
Q6A549_HUMAN
ID   Q6A549_HUMAN PRELIMINARY;      PRT;   129 AA.
AC   Q6A549;
DT   25-OCT-2004 (TrEMBLrel. 28, Created)
DT   25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   Fibroblast growth factor 5 isoform s'.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Nakakuki T., Ueba T.;
RL   Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF355187; AAQ15127.1; -; mRNA.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   ProDom; PD000831; IL1_HBGF; 1.
SQ   SEQUENCE   129 AA;  13509 MW;  98C791EB4A754EA2 CRC64;

  Query Match             28.7%;  Score 77;  DB 2;  Length 129;
  Best Local Similarity   100.0%;  Pred. No. 7.5e-67;
  Matches   77;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy        103 IYPDGKVNGSHEANMLS 119
              |||||||||||||||||
Db        103 IYPDGKVNGSHEANMLS 119


RESULT 7
Q8SQ73_CANFA
ID   Q8SQ73_CANFA PRELIMINARY;      PRT;   153 AA.
AC   Q8SQ73;
DT   01-JUN-2002 (TrEMBLrel. 21, Created)
DT   01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   FGF-5 (Fragment).
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC   Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Cartright J.M.;
RL   Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY074893; AAL82819.1; -; Genomic_DNA.
DR   EMBL; AY074892; AAL82819.1; JOINED; Genomic_DNA.
DR   HSSP; Q02195; 1QQK.
DR   SMR; Q8SQ73; 163-223.
DR   Ensembl; ENSCAFG00000008886; Canis familiaris.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002209; HB/F_growthfact.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; UNKNOWN_1.
KW   Growth factor.
FT   NON_TER       1      1
SQ   SEQUENCE   153 AA;  17420 MW;  ABF13D0921376295 CRC64;

  Query Match             22.4%;  Score 60;  DB 2;  Length 153;
  Best Local Similarity   100.0%;  Pred. No. 4.1e-50;
  Matches   60;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          6 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 65


RESULT 8
Q6XK01_RABIT
ID   Q6XK01_RABIT PRELIMINARY;      PRT;    99 AA.
AC   Q6XK01;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Fibroblast growth factor 5 (Fragment).
GN   Name=FGF5;
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC   Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=rex;
RA   Mulsant P., de Rochambeau H., Thebault R.-G.;
RL   Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY230008; AAP55849.1; -; mRNA.
FT   NON_TER       1      1
FT   NON_TER      99     99
SQ   SEQUENCE   99 AA;  10074 MW;  DC2F2385BBFD427B CRC64;

  Query Match             11.2%;  Score 30;  DB 2;  Length 99;
  Best Local Similarity   100.0%;  Pred. No. 7.1e-21;
  Matches   30;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         63 PAASLGSQGSGLEQSSFQWSPSGRRTGSLY 92
              ||||||||||||||||||||||||||||||
Db         70 PAASLGSQGSGLEQSSFQWSPSGRRTGSLY 99


RESULT 9
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Q6XK00_RABIT
ID   Q6XK00_RABIT PRELIMINARY;      PRT;    79 AA.
AC   Q6XK00;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Fibroblast growth factor 5 (Fragment).
GN   Name=FGF5;
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC   Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=rex;
RA   Mulsant P., de Rochambeau H., Thebault R.-G.;
RL   Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY230009; AAP55850.1; -; mRNA.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   ProDom; PD000831; IL1_HBGF; 1.
FT   NON_TER       1      1
FT   NON_TER      79     79
SQ   SEQUENCE   79 AA;  9056 MW;  8C50A729F49955E0 CRC64;

  Query Match             10.1%;  Score 27;  DB 2;  Length 79;
  Best Local Similarity   100.0%;  Pred. No. 5e-18;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        184 TGREWYVALNKRGKAKRGCSPRVKPQH 210
              |||||||||||||||||||||||||||
Db          3 TGREWYVALNKRGKAKRGCSPRVKPQH 29


RESULT 10
Q5TLE2_BRARE
ID   Q5TLE2_BRARE PRELIMINARY;      PRT;   225 AA.
AC   Q5TLE2;
DT   01-FEB-2005 (TrEMBLrel. 29, Created)
DT   01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT   01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE   FGF5.
GN   Name=fgf5;
OS   Brachydanio rerio (Zebrafish) (Danio rerio).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC   Cyprinidae; Danio.
OX   NCBI_TaxID=7955;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Itoh N.;
RT   "Danio rerio fibroblast growth factor 5 (fgf5) mRNA.";
RL   Submitted (NOV-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB194699; BAD69616.1; -; mRNA.
DR   ZFIN; ZDB-GENE-050201-6; fgf5.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002209; HB/F_growthfact.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Growth factor.
SQ   SEQUENCE   225 AA;  25933 MW;  329EAEDBE071308C CRC64;

  Query Match              7.8%;  Score 21;  DB 2;  Length 225;
  Best Local Similarity   100.0%;  Pred. No. 9.9e-12;
  Matches   21;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        156 FTDDCKFRERFQENSYNTYAS 176
              |||||||||||||||||||||
Db        110 FTDDCKFRERFQENSYNTYAS 130


RESULT 11
Q4RPQ6_TETNG
ID   Q4RPQ6_TETNG PRELIMINARY;      PRT;   230 AA.
AC   Q4RPQ6;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Chromosome 12 SCAF15007, whole genome shotgun sequence.
DE   (Fragment).
GN   ORFNames=GSTENG00030976001;
OS   Tetraodon nigroviridis (Green puffer).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC   Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC   Tetradontoidea; Tetraodontidae; Tetraodon.
OX   NCBI_TaxID=99883;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
RA   Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
RA   Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
RA   Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
RA   Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
RA   Biemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
RA   Cruaud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
RA   Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,
RA   Kellis M., Volff JN., Guigo R., Zody M.C., Mesirov J.,
RA   Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
RA   Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
RA   Wincker P., Lander E.S., Weissenbach J., Roest Crollius H.;
RT   "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
RT   the early vertebrate proto-karyotype.";
RL   Nature 431:946-957(2004).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RG   Genoscope; Whitehead Institute Centre for Genome Research;
RL   Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- CAUTION: The sequence shown here is derived from an
CC       EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
CC       preliminary data.
DR   EMBL; CAAE01015007; CAG09626.1; -; Genomic_DNA.
DR   InterPro; IPR002209; GF_heparin_bd.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Growth factor.
FT   NON_TER     230    230
SQ   SEQUENCE   230 AA;  26100 MW;  42BB6EDCE908EC0A CRC64;

  Query Match              7.1%;  Score 19;  DB 2;  Length 230;
  Best Local Similarity   100.0%;  Pred. No. 9.3e-10;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        158 DDCKFRERFQENSYNTYAS 176
              |||||||||||||||||||
Db        110 DDCKFRERFQENSYNTYAS 128


RESULT 12
Q8WN07_CANFA
ID   Q8WN07_CANFA PRELIMINARY;      PRT;    87 AA.
AC   Q8WN07;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
```

```
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Fibroblast growth factor 5 (Fragment).
GN   Name=FGF-5;
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC   Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Cartwright J.M.;
RL   Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF453760; AAL50825.1; -; Genomic_DNA.
DR   HSSP; P08620; 1IJT.
DR   Ensembl; ENSCAFG00000008885; Canis familiaris.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   ProDom; PD000831; IL1_HBGF; 1.
FT   NON_TER       1      1
FT   NON_TER      87     87
SQ   SEQUENCE   87 AA;  8491 MW;  940B9B02538C38CF CRC64;

  Query Match             6.0%;  Score 16;  DB 2;  Length 87;
  Best Local Similarity   100.0%;  Pred. No. 3.4e-07;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         94 RVGIGFHLQIYPDGKV 109
              ||||||||||||||||
Db         72 RVGIGFHLQIYPDGKV 87


RESULT 13
O13543_YEAST
ID   O13543_YEAST PRELIMINARY;      PRT;   109 AA.
AC   O13543;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE   Ylr294cp (YLR294C).
GN   OrderedLocusNames=YLR294C;
OS   Saccharomyces cerevisiae (Baker's yeast).
OC   Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC   Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX   NCBI_TaxID=4932;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=97313267; PubMed=9169871;
RA   Johnston M., Hillier L.W., Riles L., Albermann K., Andre B.,
RA   Ansorge W., Benes V., Brueckner M., Delius H., Dubois E.,
RA   Duesterhoeft A., Entian K.-D., Floeth M., Goffeau A., Hebling U.,
RA   Heumann K., Heuss-Neitzel D., Hilbert H., Hilger F., Kleine K.,
RA   Koetter P., Louis E.J., Messenguy F., Mewes H.-W., Miosga T.,
RA   Moestl D., Mueller-Auer S., Nentwich U., Obermaier B., Piravandi E.,
RA   Pohl T.M., Portetelle D., Purnelle B., Rechmann S., Rieger M.,
RA   Rinke M., Rose M., Scharfe M., Scherens B., Scholler P., Schwager C.,
RA   Schwarz S., Underwood A.P., Urrestarazu L.A., Vandenbol M.,
RA   Verhasselt P., Vierendeels F., Voet M., Volckaert G., Voss H.,
RA   Wambutt R., Wedler E., Wedler H., Zimmermann F.K., Zollner A.,
RA   Hani J., Hoheisel J.D.;
RT   "The nucleotide sequence of Saccharomyces cerevisiae chromosome XII.";
RL   Nature 387:87-90(1997).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RA   Pauley A.;
RL   Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RA   Waterston R.;
RL   Submitted (NOV-1994) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RA   Cherry J.M.;
RL   Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
RN   [5]
RP   NUCLEOTIDE SEQUENCE.
RA   Marsischky G., Rolfs A., Richardson A., Kane M., Baqui M., Taycher E.,
RA   Hu Y., Vannberg F., Weger J., Kramer J., Moreira D., Kelley F.,
RA   Zuo D., Raphael J., Hogle C., Jepson D., Williamson J., Camargo A.,
RA   Gonzaga L., Vasconcelos A.T., Simpson A., Kolodner R., Harlow E.,
RA   LaBaer J.;
RL   Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; U17243; AAB67352.1; -; Genomic_DNA.
DR   EMBL; AY558218; AAS56544.1; -; Genomic_DNA.
DR   PIR; S69307; S69307.
DR   IntAct; O13543; -.
KW   Complete proteome.
SQ   SEQUENCE   109 AA;  13120 MW;  02E1B166CFC70BEC CRC64;

  Query Match             3.7%;  Score 10;  DB 2;  Length 109;
  Best Local Similarity   100.0%;  Pred. No. 0.31;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 SLSFLLLLFF 11
              ||||||||||
Db         82 SLSFLLLLFF 91


RESULT 14
Q7Y0C1_ORYSA
ID   Q7Y0C1_ORYSA PRELIMINARY;      PRT;   349 AA.
AC   Q7Y0C1;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Putative Dof zinc finger protein.
GN   Name=OSJNBa0079B15.26;
OS   Oryza sativa (japonica cultivar-group).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC   Ehrhartoideae; Oryzeae; Oryza.
OX   NCBI_TaxID=39947;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Buell C.R., Yuan Q., Ouyang S., Liu J., Gansberger K., Jones K.M.,
RA   Overton II L.L., Tsitrin T., Kim M.M., Bera J.J., Jin S.S.,
RA   Fadrosh D.W., Tallon L.J., Koo H., Zismann V., Hsiao J., Blunt S.,
RA   Vanaken S.S., Riedmuller S.B., Utterback T.T., Feldblyum T.V.,
RA   Yang Q.Q., Haas B.J., Suh B.B., Peterson J.J., Quackenbush J.,
RA   White O., Salzberg S.L., Fraser C.M.;
RL   Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RA   Buell R.;
RL   Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AC099043; AAP50963.1; -; Genomic_DNA.
DR   Gramene; Q7Y0C1; -.
DR   GO; GO:0003677; F:DNA binding; IEA.
DR   InterPro; IPR003851; Znf_Dof.
DR   Pfam; PF02701; zf-Dof; 1.
DR   PROSITE; PS01361; ZF_DOF_1; UNKNOWN_1.
DR   PROSITE; PS50884; ZF_DOF_2; 1.
SQ   SEQUENCE   349 AA;  35653 MW;  7C8BBF28AC6CAFD8 CRC64;

  Query Match             3.7%;  Score 10;  DB 2;  Length 349;
  Best Local Similarity   100.0%;  Pred. No. 0.9;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         57 SSASSSPAAS 66
              ||||||||||
Db        249 SSASSSPAAS 258


RESULT 15
Q54TY7_DICDI
ID   Q54TY7_DICDI PRELIMINARY;      PRT;   418 AA.
```

```
AC   Q54TY7;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   MADS-box transcription factor.
GN   Name=srfA; ORFNames=DDB0214892;
OS   Dictyostelium discoideum (Slime mold).
OC   Eukaryota; Mycetozoa; Dictyosteliida; Dictyostelium.
OX   NCBI_TaxID=44689;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=AX4;
RA   Eichinger L., Pachebat J.A., Gloeckner G., Rajandream M.-A.,
RA   Sucgang R., Berriman M., Song J., Olsen R., Szafranski K., Xu Q.,
RA   Tunggal B., Kummerfeld S., Madera M., Konfortov B.A., Rivero F.,
RA   Bankier A.T., Lehmann R., Hamlin N., Davies R., Gaudet P., Fey P.,
RA   Pilcher K., Chen G., Saunders D., Sodergren E., Davis P.,
RA   Kerhornou A., Nie X., Hall N., Anjard C., Hemphill L., Bason N.,
RA   Farbrother P., Desany B., Just E., Morio T., Rost R., Churcher C.,
RA   Cooper J., Haydock S., van Driessche N., Cronin A., Goodhead I.,
RA   Muzny D., Mourier T., Pain A., Lu M., Harper D., Lindsay R.,
RA   Hauser H., James K., Quiles M., Mohan M.B., Saito T., Buchrieser C.,
RA   Wardroper A., Felder M., Thangavelu M., Johnson D., Knights A.,
RA   Loulseged H., Mungall K., Oliver K., Price C., Quail M.A.,
RA   Urushihara H., Hernandez J., Rabbinowitsch E., Steffen D., Sanders M.,
RA   Ma J., Kohara Y., Sharp S., Simmonds M., Spiegler S., Tivey A.,
RA   Sugano S., White B., Walker D., Woodward J., Winckler T., Tanaka Y.,
RA   Shaulsky G., Schleicher M., Weinstock G., Rosenthal A., Cox E.C.,
RA   Chisholm R.L., Gibbs R., Loomis W.F., Platzer M., Kay R.R.,
RA   Williams J., Dear P.H., Noegel A.A., Barrell B., Kuspa A.;
RT   "The genome of the social amoeba Dictyostelium discoideum.";
RL   Nature 0:0-0(2005).
CC   -!- CAUTION: The sequence shown here is derived from an
CC       EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
CC       preliminary data.
DR   EMBL; AAFI01000074; EAL66675.1; -; Genomic_DNA.
DR   GO; GO:0005634; C:nucleus; IEA.
DR   GO; GO:0003700; F:transcription factor activity; IEA.
DR   GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.
KW   DNA-binding; Nuclear protein; Transcription; Transcription regulation.
SQ   SEQUENCE   418 AA;  47546 MW;  8C86042A75C82D8A CRC64;

  Query Match             3.7%;  Score 10;  DB 2;  Length 418;
  Best Local Similarity   100.0%;  Pred. No. 1.1;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSSPA 64
              ||||||||||
Db        388 SSSSASSSPA 397


Search completed: April 11, 2006, 03:36:41
Job time : 73 secs
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GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:25:35 ; Search time 77 Seconds
(without alignments)
1529.266 Million cell updates/sec

Title: US-10-089-485-18
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 2443163 seqs, 439378781 residues

Word size : 1

Total number of hits satisfying chosen parameters: 2442881

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 268 | 100.0 | 268 | 4 | AAE00642 | Aae00642 Human fib |
| 2 | 246 | 91.8 | 246 | 4 | AAE00640 | Aae00640 Human fib |
| 3 | 237 | 88.4 | 268 | 2 | AAY31792 | Aay31792 Human fib |
| 4 | 237 | 88.4 | 268 | 3 | AAB10296 | Aab10296 Fibroblas |
| 5 | 237 | 88.4 | 268 | 4 | AAB61660 | Aab61660 FGF5 prot |
| 6 | 237 | 88.4 | 268 | 6 | ABP54276 | Abp54276 Human fib |
| 7 | 237 | 88.4 | 268 | 6 | ADA95451 | Ada95451 Fibroblas |
| 8 | 237 | 88.4 | 268 | 7 | ADD66124 | Add66124 Fibroblas |
| 9 | 237 | 88.4 | 268 | 8 | ADT97922 | Adt97922 Human ker |
| 10 | 237 | 88.4 | 268 | 9 | ADX69307 | Adx69307 Human hep |
| 11 | 216 | 80.6 | 248 | 2 | AAY31791 | Aay31791 Human fib |
| 12 | 215 | 80.2 | 247 | 2 | AAY31793 | Aay31793 Human fib |
| 13 | 195 | 72.8 | 246 | 4 | AAE00639 | Aae00639 Human fib |
| 14 | 195 | 72.8 | 268 | 2 | AAR70813 | Aar70813 FGF-5. 3/ |
| 15 | 195 | 72.8 | 268 | 2 | AAR80780 | Aar80780 Fibroblas |
| 16 | 195 | 72.8 | 268 | 2 | AAW75715 | Aaw75715 Fibroblas |
| 17 | 195 | 72.8 | 268 | 2 | AAY08585 | Aay08585 Human FGF |
| 18 | 195 | 72.8 | 268 | 3 | AAY32337 | Aay32337 Human fib |
| 19 | 195 | 72.8 | 268 | 3 | AAY90414 | Aay90414 FGF-5, SE |
| 20 | 195 | 72.8 | 268 | 4 | AAE00636 | Aae00636 Human MUS |
| 21 | 195 | 72.8 | 268 | 4 | AAE04405 | Aae04405 Human fib |
| 22 | 195 | 72.8 | 268 | 4 | AAB50701 | Aab50701 Human fib |
| 23 | 195 | 72.8 | 268 | 4 | AAB85816 | Aab85816 Human fib |
| 24 | 195 | 72.8 | 268 | 7 | ADC34580 | Adc34580 Human fib |
| 25 | 195 | 72.8 | 268 | 7 | ADH92004 | Adh92004 Fibroblas |
| 26 | 195 | 72.8 | 268 | 8 | ADS20334 | Ads20334 Fibroblas |
| 27 | 182 | 67.9 | 266 | 3 | AAY87852 | Aay87852 Human FGF |
| 28 | 182 | 67.9 | 266 | 6 | ABG73848 | Abg73848 Human fib |
| 29 | 182 | 67.9 | 266 | 6 | ABG72713 | Abg72713 Recombina |
| 30 | 176 | 65.7 | 176 | 4 | AAE00638 | Aae00638 Human fib |
| 31 | 151 | 56.3 | 266 | 3 | AAY87858 | Aay87858 Human FGF |
| 32 | 151 | 56.3 | 266 | 6 | ABG74160 | Abg74160 Human fib |
| 33 | 151 | 56.3 | 266 | 6 | ABG72719 | Abg72719 Recombina |
| 34 | 151 | 56.3 | 267 | 1 | AAP82964 | Aap82964 Encoded b |
| 35 | 151 | 56.3 | 267 | 2 | AAR48064 | Aar48064 FGF-3 cDN |
| 36 | 151 | 56.3 | 267 | 2 | AAW22600 | Aaw22600 Human fib |
| 37 | 151 | 56.3 | 267 | 4 | AAB50709 | Aab50709 Human fib |
| 38 | 151 | 56.3 | 267 | 4 | AAE00645 | Aae00645 Human fib |
| 39 | 151 | 56.3 | 267 | 4 | AAG65651 | Aag65651 Human fib |
| 40 | 151 | 56.3 | 267 | 4 | AAB50277 | Aab50277 Human FGF |
| 41 | 151 | 56.3 | 267 | 5 | AAE18810 | Aae18810 Human FGF |
| 42 | 151 | 56.3 | 267 | 5 | ABB99124 | Abb99124 Human fib |
| 43 | 151 | 56.3 | 267 | 8 | ADM94750 | Adm94750 Human fib |
| 44 | 151 | 56.3 | 268 | 2 | AAW53031 | Aaw53031 Fibroblas |
| 45 | 145 | 54.1 | 176 | 4 | AAE00637 | Aae00637 Human fib |

ALIGNMENTS

RESULT 1
AAE00642
ID AAE00642 standard; protein; 268 AA.
XX
AC AAE00642;
XX
DT 02-JUL-2001 (first entry)
XX
DE Human fibroblast growth factor-5 protein of ORF-2 from clone 10E4-1.
XX
KW Human; fibroblast growth factor-5; FGF-5; neoplasm; cytostatic; RCC;
KW renal cell carcinoma; immunomodulator; gene therapy; carcinoma; breast;
KW prostate; bladder; pancreas; TAA; tumour associated antigen;
KW horseshoe kidney; Hippel-Lindau disease; acquired renal cystic disease;
KW adult polycystic kidney disease; clone 10E4-1.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Region 161. .220
FT /label= Immunogenic_epitope
XX
PN WO200125271-A2.
XX
PD 12-APR-2001.
XX
PF 29-SEP-2000; 2000WO-US026689.
XX
PR 02-OCT-1999; 99US-0157103P.
XX
PA (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Hanada K, Yang JC;
XX
DR WPI; 2001-290607/30.
DR N-PSDB; AAD03941.
XX
PT Treating a subject having a neoplasm expressing fibroblast growth factor-
PT 5 (FGF-5), e.g. prostate, breast, bladder, or pancreas carcinoma,
PT comprises modulating an immune response to FGF-5 or modulating FGF-5
PT expression or activity.
XX
PS Claim 7; Page 99; 101pp; English.
XX
CC The present invention relates to a method for treating a subject having
CC neoplasm expressing fibroblast growth factor-5 (FGF-5) comprises
CC modulating an immune response to FGF-5 or FGF-5 expression or activity.

```
CC   FGF is a tumour associated antigen (TAA). The method is useful for
CC   treating or preventing a neoplasm such as prostate carcinoma, breast
CC   carcinoma, bladder carcinoma, pancreas carcinoma, and renal cell
CC   carcinoma (RCC) and diseases such as Hippel-Lindau disease, horseshoe
CC   kidneys, adult polycystic kidney disease and acquired renal cystic
CC   disease. FGF-5 polypeptides may be used as immunogen in the production of
CC   antibodies, which are useful in quantitative immunoassays that determine
CC   concentrations of antigen-bearing substances in biological samples, and
CC   to (semi-)quantitatively identify the presence of antigen in a biological
CC   sample. The antibodies may also be used to treat FGF-5 expressing or
CC   overexpressing tumours by decreasing FGF-5 activity, as diagnostic agents
CC   to monitor the progression or regression of an FGF-5 expressing or
CC   overexpressing tumour in a patient undergoing therapy for the treatment
CC   of neoplasm. FGF-5 cDNA is also useful in gene therapy. The present
CC   sequence is a protein encoded by the open reading frame-2 (ORF-2) of
CC   human FGF-5 full length cDNA from clone 10E4-1
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 6.2e-247;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPP 240

Qy        241 SPIKPKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKPKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 2
AAE00640
ID   AAE00640 standard; peptide; 246 AA.
XX
AC   AAE00640;
XX
DT   02-JUL-2001  (first entry)
XX
DE   Human fibroblast growth factor-5 (FGF-5) peptide #2 from clone 6A4-1.
XX
KW   Human; fibroblast growth factor-5; FGF-5; neoplasm; cytostatic; RCC;
KW   renal cell carcinoma; immunomodulator; gene therapy; carcinoma; breast;
KW   prostate; bladder; pancreas; TAA; tumour associated antigen;
KW   horseshoe kidney; Hippel-Lindau disease; acquired renal cystic disease;
KW   adult polycystic kidney disease; clone 6A4-1.
XX
OS   Homo sapiens.
XX
PN   WO200125271-A2.
XX
PD   12-APR-2001.
XX
PF   29-SEP-2000; 2000WO-US026689.
XX
PR   02-OCT-1999;   99US-0157103P.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Hanada K,  Yang JC;
XX
DR   WPI; 2001-290607/30.
DR   N-PSDB; AAD03938.
XX
PT   Treating a subject having a neoplasm expressing fibroblast growth factor-
PT   5 (FGF-5), e.g. prostate, breast, bladder, or pancreas carcinoma,
PT   comprises modulating an immune response to FGF-5 or modulating FGF-5
PT   expression or activity.
XX
PS   Claim 7; Page 94; 101pp; English.
XX
CC   The present invention relates to a method for treating a subject having
CC   neoplasm expressing fibroblast growth factor-5 (FGF-5) comprises
CC   modulating an immune response to FGF-5 or FGF-5 expression or activity.
CC   FGF is a tumour associated antigen (TAA). The method is useful for
CC   treating or preventing a neoplasm such as prostate carcinoma, breast
CC   carcinoma, bladder carcinoma, pancreas carcinoma, and renal cell
CC   carcinoma (RCC) and diseases such as Hippel-Lindau disease, horseshoe
CC   kidneys, adult polycystic kidney disease and acquired renal cystic
CC   disease. FGF-5 polypeptides may be used as immunogen in the production of
CC   antibodies, which are useful in quantitative immunoassays that determine
CC   concentrations of antigen-bearing substances in biological samples, and
CC   to (semi-)quantitatively identify the presence of antigen in a biological
CC   sample. The antibodies may also be used to treat FGF-5 expressing or
CC   overexpressing tumours by decreasing FGF-5 activity, as diagnostic agents
CC   to monitor the progression or regression of an FGF-5 expressing or
CC   overexpressing tumour in a patient undergoing therapy for the treatment
CC   of neoplasm. FGF-5 cDNA is also useful in gene therapy. The present
CC   sequence is a human FGF-5 peptide from clone 6A4-1
XX
SQ   Sequence 246 AA;

  Query Match             91.8%;  Score 246;  DB 4;  Length 246;
  Best Local Similarity   100.0%;  Pred. No. 5.7e-226;
  Matches  246;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         23 EKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 82
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 EKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 60

Qy         83 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 142
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 120

Qy        143 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 202
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 180

Qy        203 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYR 262
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYR 240

Qy        263 LKFRFG 268
              ||||||
Db        241 LKFRFG 246


RESULT 3
AAY31792
ID   AAY31792 standard; protein; 268 AA.
XX
AC   AAY31792;
XX
DT   06-DEC-1999  (first entry)
XX
DE   Human fibroblast growth factor 5.
XX
KW   Fibroblast growth factor 5; FGF-5; human; eye; retina; ocular disease;
KW   retinopathy; maculopathy; retinal degeneration; retinitis pigmentosa;
KW   macular degeneration; retinal detachment; retinal tear; macular hole;
KW   degenerative myopia; acute retinal necrosis syndrome;
KW   traumatic chorioretinopathy; Purtscher's retinopathy; oedema;
KW   retinal vision occlusion; collagen vascular disease;
```

KW thrombocytompenic purpura; uveitis; retinal vasculitis; therapy.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1. .21
FT /note= "signal peptide"
FT Protein 22. .268
FT /note= "mature protein"
XX
PN WO9945952-A2.
XX
PD 16-SEP-1999.
XX
PF 10-MAR-1999; 99WO-US005375.
XX
PR 12-MAR-1998; 98US-00041383.
PR 29-JAN-1999; 99US-00240952.
XX
PA (GETH ) GENENTECH INC.
XX
PI Kljavin IJ, La Fleur M;
XX
DR WPI; 1999-561619/47.
XX
PT Novel method using FGF-5 for preventing retinal neuron death and for
PT treating ocular diseases.
XX
PS Claim 3; Fig 10; 52pp; English.
XX
CC This sequence represents human fibroblast growth factor 5 (FGF-5),
CC including the signal peptide. A claimed method of delaying, preventing or
CC rescuing retinal cells from injury or death without causing angiogenesis
CC or mitogenesis comprises administering an active FGF-5 polypeptide such
CC as the present polypeptide. The retinal cells are: (a) retinal neurons
CC selected from photoreceptors, retinal ganglion cells, displaced retinal
CC ganglion cells, amacrine cells, displaced amacrine cells, horizontal and
CC bipolar neurons; or (b) supportive cells selected from Muller cells and
CC pigment epithelial cells. The method is used to treat photoreceptor cell
CC injury or death caused by an ocular disease, retinal injury, light or
CC environmental trauma. The ocular disease is especially selected from:
CC retinitis pigmentosa; macular degeneration, including age-related;
CC retinal detachment; retinal tears; retinopathy; retinal degenerative
CC diseases; macular holes; degenerative myopia; acute retinal necrosis
CC syndrome; traumatic chorioretinopathies or contusion, such as Purtscher's
CC retinopathy; oedema; ischemic conditions such as central or branch
CC retinal vision occlusion; collagen vascular diseases; thrombocytompenic
CC purpura; uveitis; retinal vasculitis and occlusion associated with Eales
CC disease and systemic lupus erythematosus (all claimed)
XX
SQ Sequence 268 AA;

Query Match 88.4%; Score 237; DB 2; Length 268;
Best Local Similarity 100.0%; Pred. No. 2.4e-217;
Matches 237; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
```

RESULT 4
AAB10296
ID AAB10296 standard; protein; 268 AA.
XX
AC AAB10296;
XX
DT 20-NOV-2000 (first entry)
XX
DE Fibroblast growth factor FGF5 protein SEQ ID NO: 15.
XX
KW Human; keratinocyte growth factor; KGF-2; antiulcer; antidiabetic;
KW antiinflammatory; cytoprotective; dermatological; gastrointestinal;
KW hepatic; respiratory; renal; cerebroprotective; mucositis; treatment;
KW epithelial cell proliferation; inflammatory bowel disease; lung damage;
KW liver disorder; diabetes; oral injury; gastrointestinal injury;
KW gut toxicity; gastric; duodenal; epidermolysis bullosa; skin graft;
KW skin disorder; renal failure; brain injury; intestinal fibrosis;
KW proctitis, female reproductive tract disorder; pulmonary fibrosis;
KW pneumonitis; pleural retraction; hemopoietic syndrome; myelotoxicity;
KW fibroblast growth factor; FGF5.
XX
OS Unidentified.
XX
PN US6077692-A.
XX
PD 20-JUN-2000.
XX
PF 13-FEB-1998; 98US-00023082.
XX
PR 14-FEB-1995; 95WO-US001790.
PR 05-JUN-1995; 95US-00461195.
PR 13-AUG-1996; 96US-0023852P.
PR 28-FEB-1997; 97US-0039045P.
PR 23-MAY-1997; 97US-00862432.
PR 13-AUG-1997; 97US-0055561P.
PR 13-AUG-1997; 97US-00910875.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Mendrick D, Duan DR, Ni J, Jimenez P, Coleman TA, Gruber JR;
PI Dillon PJ, Gentz RL, Ruben SM, Zhang J, Moore PA, Rampy MA;
XX
DR WPI; 2000-441307/38.
XX
PT Novel keratinocyte growth factor useful for promoting and accelerating
PT wound healing, comprising at least 10 contiguous amino acids from a
PT specific amino acid sequence.
XX
PS Disclosure; Fig 2A-C; 190pp; English.
XX
CC This invention describes a novel human keratinocyte growth factor, KGF-2
CC (I), which has antiulcer, antidiabetic, antiinflammatory, cytoprotective,
CC dermatological, gastrointestinal, hepatic, respiratory, renal and
CC cerebroprotective activity. (I) is useful for stimulating epithelial cell
CC proliferation in patients suffering from wound, mucositis, ulcer such as
CC venous statis ulcer, diabetic ulcer and cubitus ulcer. (I) is also useful
CC for treating inflammatory bowel disease, liver disorder, lung damage,
CC diabetes, oral injury, gastrointestinal injury, gut toxicity, gastric
CC ulcer, duodenal ulcer, epidermolysis bullosa, skin graft, skin disorder,
CC renal failure, brain injury, breast tissue injury, urothelial damage,
CC female reproductive tract disorder, intestinal fibrosis, proctitis,
CC pulmonary fibrosis, pneumonitis, pleural retraction, hemopoietic syndrome
CC and myelotoxicity. (I) is also useful for increasing the adherence of
CC skin grafts to wound beds and to stimulate re-epithelialization from the
CC wound bed, to produce changes in hepatocyte proliferation, to reduce the
CC side effects of gut toxicity, to regenerate skin in full and partial
CC thickness skin defects, and to prevent and heal damage to lungs. KGF-2
CC shows enhanced activity, increased stability, higher yield and better
CC solubility. This sequence represents the fibroblast growth factor FGF5
CC which is described in the method of the invention
XX
SQ Sequence 268 AA;

```
  Query Match             88.4%;  Score 237;  DB 3;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-217;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 5
AAB61660
ID   AAB61660 standard; protein; 268 AA.
XX
AC   AAB61660;
XX
DT   10-APR-2001  (first entry)
XX
DE   FGF5 protein.
XX
KW   Keratinocyte growth factor; KGF-2; epithelial cell proliferation; wound;
KW   mucositis; ulcer; inflammatory bowel disease; liver disorder;
KW   lung damage; diabetes; oral injury; gastrointestinal injury;
KW   epidermolysis bullosa; renal failure; brain injury; proctitis;
KW   pulmonary fibrosis; haemopoietic syndrome; ovary injury; infertility;
KW   liver fibrosis.
XX
OS   Homo sapiens.
XX
PN   WO200102433-A1.
XX
PD   11-JAN-2001.
XX
PF   03-JUL-2000; 2000WO-US018328.
XX
PR   02-JUL-1999;   99US-0142343P.
PR   14-JUL-1999;   99US-0143648P.
PR   15-JUL-1999;   99US-0144024P.
PR   12-AUG-1999;   99US-0148628P.
PR   19-AUG-1999;   99US-0149935P.
PR   03-NOV-1999;   99US-0163375P.
PR   22-DEC-1999;   99US-0171677P.
PR   19-APR-2000; 2000US-0198322P.
PR   19-MAY-2000; 2000US-0205417P.
PR   30-JUN-2000; 2000US-00142343.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ruben SM,  Jimenez P,  Duan DR,  Rampy MA,  Mendrick D,  Zhang J;
PI   Ni J,  Moore PA,  Coleman TA,  Gruber JR,  Dillon PJ,  Gentz RL;
XX
DR   WPI; 2001-071578/08.
XX
PT   A polynucleotide encoding the human keratinocyte growth factor useful for
PT   stimulating epithelial cell proliferation in a patients that has e.g a
PT   wound.
XX
PS   Disclosure; Fig 2; 591pp; English.
XX
CC   The present invention relates to human keratinocyte growth factor (KGF-2;
CC   see AAF31901 and AAB61657). The present sequence is a protein used in a
CC   sequence homology comparison with human KGF-2. KGF-2 can be used to
CC   stimulate epithelial cell proliferation in a patient, where the patient
CC   has a wound, mucositis, an ulcer, inflammatory bowel disease, liver
CC   disorder, lung damage, diabetes, oral injury, gastrointestinal injury,
CC   gut toxicity, epidermolysis bullosa, skin graft, skin disorder, renal
CC   failure, brain injury, breast tissue injury, urothelial damage, female
CC   reproductive tract disorder, intestinal fibrosis, proctitis, pulmonary
CC   fibrosis, peunrumonitis, plural retraction, haemopoietic syndrome, and
CC   myelotoxicity. In addition, KGF-2 can be used in the treatment or
CC   prevention of ovary injury, infertility, or fibrosis of the liver. KGF-2
CC   also promotes internal healing, donor site healing, internal surgical
CC   wound healing or healing of incisional wounds made during cosmetic
CC   surgery in a patient
XX
SQ   Sequence 268 AA;

  Query Match             88.4%;  Score 237;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-217;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 6
ABP54276
ID   ABP54276 standard; protein; 268 AA.
XX
AC   ABP54276;
XX
DT   16-JAN-2003  (first entry)
XX
DE   Human fibroblast growth factor 5 protein SEQ ID NO:15.
XX
KW   Keratinocyte growth factor 2; KGF-2; fibroblast growth factor 12; FGF-12;
KW   KGF-2 Delta28; inflammation; vulnerary; dermatological;
KW   pulmonary epithelial cell; mucositis; epidermolysis bullosa;
KW   wound healing.
XX
OS   Homo sapiens.
XX
PN   WO200277155-A2.
XX
PD   03-OCT-2002.
XX
PF   04-JAN-2002; 2002WO-US000101.
XX
PR   08-JAN-2001; 2001US-0259853P.
PR   26-APR-2001; 2001US-0286368P.
PR   09-NOV-2001; 2001US-0331168P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ruben SM,  Jimenez P,  Duan DR,  Rampy MA,  Mendrick D,  Zhang J;
PI   Ni J,  Moore PA,  Coleman TA,  Gruber JR,  Dillon PJ,  Gentz RL;
XX
DR   WPI; 2003-018897/01.
XX
PT   Treating inflammation comprises administering Keratinocyte Growth Factor
PT   -2Delta28 to a patient.
XX
```

```
PS   Disclosure; Fig 2; 583pp; English.
XX
CC   The present invention describes a method for treating inflammation. The
CC   method comprises administering keratinocyte growth factor 2 (KGF-2)
CC   Delta28 to a patient. Also described: (1) a method for stimulating the
CC   growth of pulmonary epithelial cells; or (2) a method of preventing
CC   mucositis. KGF-2 Delta28 has vulnerary and dermatological activities, and
CC   can be used in gene therapy. KGF-2 Delta28 is useful for treating
CC   inflammation, stimulating the growth of pulmonary epithelial cells or
CC   preventing mucositis. It can also be used for treating epidermolysis
CC   bullosa and for promoting wound healing. ABQ82994 to ABQ83130 and
CC   ABP54273 to ABP54311 represent sequences used in the exemplification of
CC   the present invention
XX
SQ   Sequence 268 AA;

  Query Match             88.4%;  Score 237;  DB 6;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-217;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 7
ADA95451
ID   ADA95451 standard; protein; 268 AA.
XX
AC   ADA95451;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Fibroblast growth factor (FGF) polypeptide #3.
XX
KW   Keratinocyte growth factor 2; KGF-2; epidermal cell; keratinocyte;
KW   wrinkle; aged skin; skin strength; epidermal thickening;
KW   scarring reduction; cosmetic surgery; epithelial cell; liver; pancreas;
KW   kidney; prostate; bladder; lung; oesophagus; wound healing; diabetes;
KW   ischaemic blockage; ischaemic injury; steroid; uraemia; malnutrition;
KW   vitamin deficiency; obesity; immunosuppression; radiation therapy;
KW   chemotherapy; anastomosis; ulcer; burn; mucositis;
KW   inflammatory bowel disease; inflammation; radiation-induced condition;
KW   viral hepatitis; liver failure; pancreatitis; lung damaging condition;
KW   renal failure; fibroblast growth factor; FGF.
XX
OS   Unidentified;.
XX
PN   US2003077695-A1.
XX
PD   24-APR-2003.
XX
PF   01-JUL-1999;   99US-00345373.
XX
PR   14-FEB-1995;   95WO-US001790.
PR   13-AUG-1996;   96US-0023852P.
PR   28-FEB-1997;   97US-0039405P.
PR   23-MAY-1997;   97US-00862432.
PR   13-AUG-1997;   97US-0055561P.
PR   13-AUG-1997;   97US-00910875.
PR   13-FEB-1998;   98US-00023082.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ruben SM,  Jimenez P,  Duan DR,  Rampy MA,  Mendrick D,  Zhang J;
PI   Ni J,  Moore PA,  Coleman TA,  Gruber JR,  Dillon PJ,  Gentz RL;
XX
DR   WPI; 2003-596836/56.
XX
PT   New Keratinocyte Growth Factor (KGF-2) polypeptides and polynucleotides,
PT   useful for treating or preventing mucositis or Crohn's disease, reducing
PT   scarring, or improving wound healing or skin strength.
XX
PS   Disclosure; Fig 2; 195pp; English.
XX
CC   The invention relates to Keratinocyte Growth Factor 2 (KGF-2)
CC   polypeptides and the polynucleotides encoding them. The KGF-2
CC   polypeptides are useful for stimulating the proliferation of epidermal
CC   cells (e.g. keratinocytes) to prevent or improve the appearance of
CC   wrinkles or aged skin, improve skin strength, promote epidermal
CC   thickening, reduce scarring or improve healing after cosmetic surgery.
CC   The KGF-2 polypeptide is also useful for stimulating epithelial cells
CC   (e.g. epithelial cells of the liver, pancreas, kidney, prostate, bladder,
CC   lung or oesophagus) or promoting wound healing in a wound healing
CC   impaired individual (due to diabetes, ischaemic blockage or injury,
CC   steroids, non-steroid compounds, uraemia, malnutrition, vitamin
CC   deficiencies, obesity, infection, immunosuppression, radiation therapy or
CC   chemotherapy). The wound may be caused by surgery (e.g. colonic or
CC   gastrointestinal surgical procedures such as anastomosis), ulcers, burns,
CC   etc. The KGF-2 polypeptide is also useful for treating or preventing
CC   mucositis (e.g. oral, oesophageal, gastric or rectal), inflammatory bowel
CC   disease (e.g. ulcerative colitis or Crohn's disease), inflammation (e.g.
CC   psoriasis, eczema, dermatitis or arthritis), a radiation-induced
CC   condition (e.g. oral injury, pulmonary fibrosis, myelotoxicity), viral
CC   hepatitis, liver failure (caused by e.g. hepatitis, cirrhosis),
CC   pancreatitis, lung damaging conditions (e.g. emphysema, lung cancer,
CC   asthma), or renal failure. The polypeptide is further useful for
CC   promoting hair growth, treating tissue exposed to radiation (e.g.
CC   radiation for treating malignancy) or protecting tissue to be exposed to
CC   radiation, or promoting tissue growth or repair. This sequence represents
CC   a fibroblast growth factor (FGF) polypeptide of the invention.
XX
SQ   Sequence 268 AA;

  Query Match             88.4%;  Score 237;  DB 6;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-217;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 8
ADD66124
ID   ADD66124 standard; protein; 268 AA.
XX
AC   ADD66124;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Fibroblast growth factor, FGF5.
```

XX
KW Fibroblast growth factor; keratinocyte growth factor-2; KGF-2;
KW epidermal cell proliferation; epithelial cell proliferation;
KW wound healing; colonic surgery; gastrointestinal surgery; mucositis;
KW inflammatory bowel disease; inflammation; hair growth; radiation damage;
KW tissue growth; female genital tract repair; urothelial healing;
KW viral hepatitis; liver failure; pancreatitis; lung damaging condition;
KW renal failure.
XX
OS Unidentified.
XX
PN US2003129687-A1.
XX
PD 10-JUL-2003.
XX
PF 15-FEB-2002; 2002US-00075446.
XX
PR 14-FEB-1995; 95WO-US001790.
PR 05-JUN-1995; 95US-00461195.
PR 13-AUG-1996; 96US-0023852P.
PR 28-FEB-1997; 97US-0039045P.
PR 13-AUG-1997; 97US-0055561P.
PR 13-AUG-1997; 97US-00910875.
PR 13-FEB-1998; 98US-00023082.
PR 01-JUL-1999; 99US-00345373.
XX
PA (RUBE/) RUBEN S M.
PA (JIME/) JIMENEZ P.
PA (DUAN/) DUAN D R.
PA (RAMP/) RAMPY M A.
PA (MEND/) MENDRICK D.
PA (ZHAN/) ZHANG J.
PA (NIJJ/) NI J.
PA (MOOR/) MOORE P A.
PA (COLE/) COLEMAN T A.
PA (GRUB/) GRUBER J R.
PA (DILL/) DILLON P J.
PA (GENT/) GENTZ R L.
XX
PI Ruben SM, Jimenez P, Duan DR, Rampy MA, Mendrick D, Zhang J;
PI Ni J, Moore PA, Coleman TA, Gruber JR, Dillon PJ, Gentz RL;
XX
DR WPI; 2003-829563/77.
XX
PT New Keratinocyte Growth Factor-2 (KGF-2) polypeptide, useful for
PT preparing a composition for reducing inflammation, promoting wound
PT healing, hair growth, or treating or preventing liver or renal failure or
PT pancreatitis.
XX
PS Disclosure; SEQ ID NO 15; 183pp; English.
XX
CC The invention relates to an isolated polypeptide comprising a sequence
CC having 95% identity with amino acid residues 138(Gly)-208(Ser), 123(Val)-
CC 208(Ser), 104(Glu)-208(Ser), 77(Val)-208(Ser), 69(Ser)-208(Ser), 63(Ala)-
CC 208(Ser), 37(Cys)-208(Ser), 36(Thr)-208(Ser), 2(Trp)-208(Ser), 63(Ala)-
CC 153(Lys), 36(Thr)-153(Lys) or 138(Gly)-208(Ser) of human keratin growth
CC factor-2 (KGF-2) appearing as ADD66111. Also included are an isolated
CC polynucleotide encoding the polypeptide, a method of making a recombinant
CC vector, a method of making a recombinant host cell, a recombinant host
CC cell, a recombinant vector, a method of producing the polypeptide, a
CC method of stimulating proliferation of epidermal cells, a method of
CC stimulating proliferation of epithelial cells, a method of promoting
CC wound healing, a method of treating wounds caused by a colonic or
CC gastrointestinal surgical procedure, a method of treating or preventing
CC mucositis, a method of treating inflammatory bowel disease, a method of
CC reducing inflammation, a method of promoting hair growth, a method of
CC treating tissue exposed to radiation or protecting tissue to be exposed
CC to radiation, a method of promoting tissue growth or repair in the female
CC genital tract, a method of promoting urothelial healing, a method of
CC treating or preventing viral hepatitis, liver failure, pancreatitis, lung
CC damaging condition or renal failure. The polypeptide is useful for
CC preparing a composition for reducing inflammation, promoting wound or
CC urothelial healing, hair growth, tissue growth or repair in the female
CC genital tract, treating tissue exposed to radiation or protecting tissue
CC to be exposed to radiation, or treating or preventing viral hepatitis,
CC liver or renal failure, pancreatitis or lung damaging condition. The
CC present represents a fibroblast growth factor showing sequence similarity
CC to human KGF-2 protein.
XX
SQ Sequence 268 AA;

Query Match 88.4%; Score 237; DB 7; Length 268;
Best Local Similarity 100.0%; Pred. No. 2.4e-217;
Matches 237; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
```

RESULT 9
ADT97922
ID ADT97922 standard; protein; 268 AA.
XX
AC ADT97922;
XX
DT 16-DEC-2004 (first entry)
XX
DE Human keratinocyte growth factor-related FGF5 protein sequence SeqID15.
XX
KW lung epithelial cell; cell proliferation stimulation; hyperkeratosis;
KW buccal mucosa; tongue; oesophagus; keratinocyte growth factor; KGF-2;
KW keratolytic; respiratory-Gen; lung disease; lung damage; emphysema;
KW inhalation injury; hyaline membrane disease;
KW infant respiratory distress syndrome; bronchiopulmonary dysplasia;
KW lung fibrosis; human; fibroblast growth factor; FGF.
XX
OS Homo sapiens.
XX
PN AU2003236478-A1.
XX
PD 18-SEP-2003.
XX
PF 26-AUG-2003; 2003AU-00236478.
XX
PR 26-AUG-2003; 2003AU-00236478.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rampy M, Jimenez P, Louie A, Russell D, Mendrick D;
XX
DR WPI; 2004-662619/65.
XX
PT Stimulating (M1) proliferation of lung epithelial cells, or inducing
PT hyperkeratosis of the buccal mucosa, tongue and esophagus, by
PT administering to individual polypeptide having specific amino acid
PT residues of keratinocyte growth factor.
XX
PS Disclosure; SEQ ID NO 15; 330pp; English.
XX
CC This invention relates to a novel method of stimulating proliferation of
CC lung epithelial cells, or inducing hyperkeratosis of the buccal mucosa,
CC tongue and oesophagus. The method involves administering to an individual
CC a polypeptide comprising an amino acid sequence having amino acid

```
CC   residues Arg(80)-Ser-(208), Val(77)-Ser(208), Cys(37)-Ser(208), Thr(36)-
CC   Ser(208) or Met(1)-Ser(208) of fully defined sequence of keratinocyte
CC   growth factor (KGF-2) having 208 amino acids as given in specification.
CC   The invention may be useful for the production of compounds with a
CC   keratolytic or respiratory-Gen activity. The method is useful for
CC   stimulating proliferation of lung epithelial cells, or inducing
CC   hyperkeratosis of the buccal mucosa, tongue and oesophagus, where the
CC   polypeptide is administered to treat or prevent lung diseases or lung
CC   damage. The lung disease is acute or chronic lung disease, emphysema,
CC   inhalation injuries, hyaline membrane disease, infant respiratory
CC   distress syndrome or bronchiopulmonary dysplasia. The lung damage is
CC   caused by lung fibrosis. The method enables stimulation of proliferation
CC   of lung epithelial cells, or induction of hyperkeratosis of the buccal
CC   mucosa, tongue and oesophagus. The present sequence is that of a
CC   fibroblast growth factor (FGF) protein which was used to demostrate
CC   homology to the human KGF protein which may be used in the method of the
CC   invention.
XX
SQ   Sequence 268 AA;

  Query Match             88.4%;  Score 237;  DB 8;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-217;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 10
ADX69307
ID   ADX69307 standard; protein; 268 AA.
XX
AC   ADX69307;
XX
DT   05-MAY-2005  (first entry)
XX
DE   Human heparin binding protein #7.
XX
KW   Heparin binding protein; Neuroprotective; Nootropic; Antiparkinsonian;
KW   Anticonvulsant; VEGF-3 receptor; Angiogenesis stimulator; Gene Therapy;
KW   vascular endothelial growth factor receptor 3; VEGFR-3;
KW   angiogenesis disorder; neurodegenerative disorder; Alzheimers disease;
KW   Parkinsons disease; motor neurone disease; dementia; paralysis; VEGF-C;
KW   neurological disease; Huntingtons chorea;
KW   vascular endothelial growth factor receptor 3; neurological disease.
XX
OS   Homo sapiens.
XX
PN   WO2005016963-A2.
XX
PD   24-FEB-2005.
XX
PF   14-JUN-2004; 2004WO-US019122.
XX
PR   12-JUN-2003; 2003US-0478114P.
PR   12-JUN-2003; 2003US-0478390P.
PR   23-SEP-2003; 2003US-00669176.
XX
PA   (LUDW-) LUDWIG INST CANCER RES.
PA   (LICN ) LICENTIA LTD.
XX
PI   Alitalo K,  He Y,  Tammela T;
XX
DR   WPI; 2005-182331/19.
XX
PT   New heparin-binding Vascular Endothelial Growth Factor Receptor 3 ligands
PT   comprising prepro-VEGF-C, prepro-VEGF-D sequences or fragments, for
PT   treating neurodegenerative disorder, e.g. Alzheimer's, Parkinson's, or
PT   Huntington's disease.
XX
PS   Disclosure; SEQ ID NO 27; 219pp; English.
XX
CC   The invention relates to heparin-binding vascular endothelial growth
CC   factor receptor 3 (VEGFR-3) proteins and encoding polynucleotides. The
CC   heparin binding VEGFR-3 proteins are used for stimulating
CC   lymphangiogenesis or angiogenesis in a mammal, and for modulating the
CC   growth of mammalian endothelial cells, mammalian endothelial precursor
CC   cells or hematopoietic progenitor cells. The polypeptide may also be used
CC   for promoting recruitment, proliferation, differentiation, migration or
CC   survival of neuronal cells or neuronal precursor cells, and for treating
CC   neurodegenerative disorder, e.g. Alzheimer's diseases, Parkinson's
CC   disease, Huntington's disease, motor neuron disease, Amyotrophic Lateral
CC   Sclerosis (ALS), dementia, or cerebral palsy. The present sequence
CC   represents a human heparin binding protein of the invention.
XX
SQ   Sequence 268 AA;

  Query Match             88.4%;  Score 237;  DB 9;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-217;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 11
AAY31791
ID   AAY31791 standard; protein; 248 AA.
XX
AC   AAY31791;
XX
DT   06-DEC-1999  (first entry)
XX
DE   Human fibroblast growth factor 5 mature polypeptide.
XX
KW   Fibroblast growth factor 5; FGF-5; human; eye; retina; ocular disease;
KW   retinopathy; maculopathy; retinal degeneration; retinitis pigmentosa;
KW   macular degeneration; retinal detachment; retinal tear; macular hole;
KW   degenerative myopia; acute retinal necrosis syndrome;
KW   traumatic chorioretinopathy; Purtscher's retinopathy; oedema;
KW   retinal vision occlusion; collagen vascular disease;
KW   thrombocytompenic purpura; uveitis; retinal vasculitis; therapy.
XX
OS   Homo sapiens.
XX
PN   WO9945952-A2.
XX
PD   16-SEP-1999.
XX
PF   10-MAR-1999;   99WO-US005375.
```

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XX
PR   12-MAR-1998;   98US-00041383.
PR   29-JAN-1999;   99US-00240952.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Kljavin IJ,  La Fleur M;
XX
DR   WPI; 1999-561619/47.
DR   N-PSDB; AAX87991.
XX
PT   Novel method using FGF-5 for preventing retinal neuron death and for
PT   treating ocular diseases.
XX
PS   Claim 3; Fig 8; 52pp; English.
XX
CC   This sequence represents human fibroblast growth factor 5 (FGF-5) mature
CC   polypeptide. A claimed method of delaying, preventing or rescuing retinal
CC   cells from injury or death without causing angiogenesis or mitogenesis
CC   comprises administering an active FGF-5 polypeptide such as the present
CC   polypeptide. The retinal cells are: (a) retinal neurons selected from
CC   photoreceptors, retinal ganglion cells, displaced retinal ganglion cells,
CC   amacrine cells, displaced amacrine cells, horizontal and bipolar neurons;
CC   or (b) supportive cells selected from Muller cells and pigment epithelial
CC   cells. The method is used to treat photoreceptor cell injury or death
CC   caused by an ocular disease, retinal injury, light or environmental
CC   trauma. The ocular disease is especially selected from: retinitis
CC   pigmentosa; macular degeneration, including age-related; retinal
CC   detachment; retinal tears; retinopathy; retinal degenerative diseases;
CC   macular holes; degenerative myopia; acute retinal necrosis syndrome;
CC   traumatic chorioretinopathies or contusion, such as Purtscher's
CC   retinopathy; oedema; ischemic conditions such as central or branch
CC   retinal vision occlusion; collagen vascular diseases; thrombocytompenic
CC   purpura; uveitis; retinal vasculitis and occlusion associated with Eales
CC   disease and systemic lupus erythematosus (all claimed)
XX
SQ   Sequence 248 AA;

  Query Match             80.6%;  Score 216;  DB 2;  Length 248;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-197;
  Matches  216;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQW 81
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          2 GEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQW 61

Qy         82 SPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKF 141
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         62 SPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKF 121

Qy        142 LAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRG 201
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        122 LAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRG 181

Qy        202 CSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||
Db        182 CSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 217


RESULT 12
AAY31793
ID   AAY31793 standard; protein; 247 AA.
XX
AC   AAY31793;
XX
DT   06-DEC-1999  (first entry)
XX
DE   Human fibroblast growth factor 5 mature polypeptide.
XX
KW   Fibroblast growth factor 5; FGF-5; human; eye; retina; ocular disease;
KW   retinopathy; maculopathy; retinal degeneration; retinitis pigmentosa;
KW   macular degeneration; retinal detachment; retinal tear; macular hole;
KW   degenerative myopia; acute retinal necrosis syndrome;
KW   traumatic chorioretinopathy; Purtscher's retinopathy; oedema;
KW   retinal vision occlusion; collagen vascular disease;
KW   thrombocytompenic purpura; uveitis; retinal vasculitis; therapy.
XX
OS   Homo sapiens.
XX
PN   WO9945952-A2.
XX
PD   16-SEP-1999.
XX
PF   10-MAR-1999;   99WO-US005375.
XX
PR   12-MAR-1998;   98US-00041383.
PR   29-JAN-1999;   99US-00240952.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Kljavin IJ,  La Fleur M;
XX
DR   WPI; 1999-561619/47.
XX
PT   Novel method using FGF-5 for preventing retinal neuron death and for
PT   treating ocular diseases.
XX
PS   Claim 3; Fig 10; 52pp; English.
XX
CC   This sequence represents human fibroblast growth factor 5 (FGF-5) mature
CC   polypeptide. A claimed method of delaying, preventing or rescuing retinal
CC   cells from injury or death without causing angiogenesis or mitogenesis
CC   comprises administering an active FGF-5 polypeptide such as the present
CC   polypeptide. The retinal cells are: (a) retinal neurons selected from
CC   photoreceptors, retinal ganglion cells, displaced retinal ganglion cells,
CC   amacrine cells, displaced amacrine cells, horizontal and bipolar neurons;
CC   or (b) supportive cells selected from Muller cells and pigment epithelial
CC   cells. The method is used to treat photoreceptor cell injury or death
CC   caused by an ocular disease, retinal injury, light or environmental
CC   trauma. The ocular disease is especially selected from: retinitis
CC   pigmentosa; macular degeneration, including age-related; retinal
CC   detachment; retinal tears; retinopathy; retinal degenerative diseases;
CC   macular holes; degenerative myopia; acute retinal necrosis syndrome;
CC   traumatic chorioretinopathies or contusion, such as Purtscher's
CC   retinopathy; oedema; ischemic conditions such as central or branch
CC   retinal vision occlusion; collagen vascular diseases; thrombocytompenic
CC   purpura; uveitis; retinal vasculitis and occlusion associated with Eales
CC   disease and systemic lupus erythematosus (all claimed)
XX
SQ   Sequence 247 AA;

  Query Match             80.2%;  Score 215;  DB 2;  Length 247;
  Best Local Similarity   100.0%;  Pred. No. 2.2e-196;
  Matches  215;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         23 EKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 82
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          2 EKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 61

Qy         83 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 142
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         62 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 121

Qy        143 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 202
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        122 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 181

Qy        203 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||
Db        182 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 216


RESULT 13
AAE00639
ID   AAE00639 standard; peptide; 246 AA.
XX
```

```
AC   AAE00639;
XX
DT   02-JUL-2001  (first entry)
XX
DE   Human fibroblast growth factor-5 (FGF-5) peptide #1 from clone 6A4-1.
XX
KW   Human; fibroblast growth factor-5; FGF-5; neoplasm; cytostatic; RCC;
KW   renal cell carcinoma; immunomodulator; gene therapy; carcinoma; breast;
KW   prostate; bladder; pancreas; TAA; tumour associated antigen;
KW   horseshoe kidney; Hippel-Lindau disease; acquired renal cystic disease;
KW   adult polycystic kidney disease; clone 6A4-1.
XX
OS   Homo sapiens.
XX
PN   WO200125271-A2.
XX
PD   12-APR-2001.
XX
PF   29-SEP-2000; 2000WO-US026689.
XX
PR   02-OCT-1999;   99US-0157103P.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Hanada K,  Yang JC;
XX
DR   WPI; 2001-290607/30.
DR   N-PSDB; AAD03937.
XX
PT   Treating a subject having a neoplasm expressing fibroblast growth factor-
PT   5 (FGF-5), e.g. prostate, breast, bladder, or pancreas carcinoma,
PT   comprises modulating an immune response to FGF-5 or modulating FGF-5
PT   expression or activity.
XX
PS   Claim 7; Page 92; 101pp; English.
XX
CC   The present invention relates to a method for treating a subject having
CC   neoplasm expressing fibroblast growth factor-5 (FGF-5) comprises
CC   modulating an immune response to FGF-5 or FGF-5 expression or activity.
CC   FGF is a tumour associated antigen (TAA). The method is useful for
CC   treating or preventing a neoplasm such as prostate carcinoma, breast
CC   carcinoma, bladder carcinoma, pancreas carcinoma, and renal cell
CC   carcinoma (RCC) and diseases such as Hippel-Lindau disease, horseshoe
CC   kidneys, adult polycystic kidney disease and acquired renal cystic
CC   disease. FGF-5 polypeptides may be used as immunogen in the production of
CC   antibodies, which are useful in quantitative immunoassays that determine
CC   concentrations of antigen-bearing substances in biological samples, and
CC   to (semi-)quantitatively identify the presence of antigen in a biological
CC   sample. The antibodies may also be used to treat FGF-5 expressing or
CC   overexpressing tumours by decreasing FGF-5 activity, as diagnostic agents
CC   to monitor the progression or regression of an FGF-5 expressing or
CC   overexpressing tumour in a patient undergoing therapy for the treatment
CC   of neoplasm. FGF-5 cDNA is also useful in gene therapy. The present
CC   sequence is a human FGF-5 peptide from clone 6A4-1
XX
SQ   Sequence 246 AA;

  Query Match             72.8%;  Score 195;  DB 4;  Length 246;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-177;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         21 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 80

Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         81 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 140

Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        141 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 200

Qy        223 EQPELSFTVTVPEKK 237
              |||||||||||||||
Db        201 EQPELSFTVTVPEKK 215


RESULT 14
AAR70813
ID   AAR70813 standard; protein; 268 AA.
XX
AC   AAR70813;
XX
DT   25-MAR-2003  (revised)
DT   01-SEP-1995  (first entry)
XX
DE   FGF-5.
XX
KW   FGF-5; fibroblast growth factor; cytotoxic conjugate; fusion protein;
KW   saporin; cytostatic; tumor; diabetes; rheumatoid arthritis.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 19
FT                   /note= "Cys may be replaced by Ser"
FT   Misc-difference 93
FT                   /note= "Cys may be replaced by Ser"
FT   Misc-difference 202
FT                   /note= "Cys may be replaced by Ser"
XX
PN   WO9503831-A1.
XX
PD   09-FEB-1995.
XX
PF   27-JUL-1994;   94WO-US008511.
XX
PR   02-AUG-1993;   93US-00099924.
PR   29-OCT-1993;   93US-00145829.
XX
PA   (PRIZ-) PRIZM PHARM INC.
PA   (WHIT-) WHITTIER INST DIABETES & ENDOCRINOLOGY.
XX
PI   Sosnowski BA,  Lappi DA,  Baird AJ;
XX
DR   WPI; 1995-082038/11.
XX
PT   New monogenous preparations of cytotoxic conjugates and DNA - contain
PT   fibroblast growth factors and cytotoxic agents for treating FGF
PT   conditions such as tumours, diabetes and rheumatoid arthritis.
XX
PS   Disclosure; Page 112; 128pp; English.
XX
CC   Novel fusion proteins comprise FGF linked to saporin. FGF-1 to -9 may be
CC   used, pref. FGF-1 (AAR70812), FGF-5 (AAR70813), FGF-7 (AAR70814) or FGF-8
CC   (AAR70815) muteins, in which at least 1 Cys residue is replaced by
CC   conservative Ser substitutions. The fusion proteins are potent cytocidal
CC   agents to cells bearing the FGF receptor. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 268 AA;

  Query Match             72.8%;  Score 195;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-177;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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ID   AAR80780 standard; protein; 268 AA.
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AC   AAR80780;
XX
DT   13-MAY-1996  (first entry)
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DE   Fibroblast growth factor 5, FGF-5.
XX
KW   Conjugate; fibroblast growth factor; FGF; cytotoxin; saporin; eye;
KW   cell proliferation; regulation; pterygia; corneal clouding; cancer;
KW   psoriasis; rheumatoid arthritis.
XX
OS   Homo sapiens.
XX
PN   WO9524928-A2.
XX
PD   21-SEP-1995.
XX
PF   15-MAR-1995;   95WO-US003448.
XX
PR   15-MAR-1994;   94US-00213446.
PR   15-MAR-1994;   94US-00213447.
XX
PA   (PRIZ-) PRIZM PHARM INC.
XX
PI   Sosnowski BA,  Baird JA,  Houston LL,  Nova MP;
XX
DR   WPI; 1995-336820/43.
XX
PT   New conjugates of growth factor receptor ligand and targetted agent -
PT   partic. DNA or cytotoxin, used to control cell proliferation in the eye,
PT   e.g. to prevent growth of pterygii and corneal clouding.
XX
PS   Claim 33; Page 144; 204pp; English.
XX
CC   AAR80776-84 are fibroblast growth factors (FGF) FGF-1 to FGF-9
CC   respectively. DNA encoding these fibroblast growth factors can be used to
CC   create an FGF/saporin fusion protein. DNA encoding such fusion proteins
CC   are useful for targetting saporin (a cytotoxin) to a cell carrying the
CC   FGF receptor. Targetted agents (TA) other than saporin which may be used
CC   include in partic. DNA encoding a therapeutic protein, antisense DNA or
CC   other cytotoxic agent. The linker sequence within the fusion protein may
CC   increases serum stability or intracellular availability of the TA. The
CC   conjugates of the invention are used to inhibit cell proliferation in
CC   cells carrying the particular growth factor receptor; also when TA is DNA
CC   it can be used to deliver this to cells (for gene therapy). A specific
CC   application is to prevent excessive proliferation of epithelial cells,
CC   fibroblasts and keratinocytes in the anterior eye after surgery, partic.
CC   to prevent recurrence of pterygii after surgical removal, closure of
CC   trabeculectomy after glaucoma surgery and corneal clouding after excimer
CC   laser treatment. Other conditions which may be treated include tumours,
CC   restenosis, psoriasis, Dupuytren's contracture, diabetic complications,
CC   Kaposi's sarcoma and rheumatoid arthritis
XX
SQ   Sequence 268 AA;

  Query Match             72.8%;  Score 195;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-177;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db         223 EQPELSFTVTVPEKK 237


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Job time : 78 secs
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GenCore version 5.1.7


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Perfect score: 268
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Scoring table: OLIGO
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Searched: 572060 seqs, 82675679 residues

Word size : 1

Total number of hits satisfying chosen parameters: 570988

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Post-processing: Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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| 1 | 268 | 100.0 | 268 | 2 | US-09-949-016-7942 | Sequence 7942, Ap |
| 2 | 237 | 88.4 | 268 | 2 | US-09-023-082A-15 | Sequence 15, Appl |
| 3 | 237 | 88.4 | 268 | 2 | US-09-240-952-2 | Sequence 2, Appli |
| 4 | 237 | 88.4 | 268 | 2 | US-09-248-998-15 | Sequence 15, Appl |
| 5 | 237 | 88.4 | 268 | 2 | US-09-610-651-15 | Sequence 15, Appl |
| 6 | 237 | 88.4 | 268 | 2 | US-09-345-373-15 | Sequence 15, Appl |
| 7 | 237 | 88.4 | 268 | 2 | US-10-075-446-15 | Sequence 15, Appl |
| 8 | 216 | 80.6 | 248 | 2 | US-09-240-952-3 | Sequence 3, Appli |
| 9 | 215 | 80.2 | 247 | 2 | US-09-240-952-5 | Sequence 5, Appli |
| 10 | 195 | 72.8 | 268 | 1 | US-08-439-725A-12 | Sequence 12, Appl |
| 11 | 195 | 72.8 | 268 | 1 | US-08-464-590A-17 | Sequence 17, Appl |
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| 14 | 195 | 72.8 | 268 | 1 | US-08-438-439C-8 | Sequence 8, Appli |
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| 20 | 195 | 72.8 | 268 | 2 | US-09-390-207-20 | Sequence 20, Appl |
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| 28 | 172 | 64.2 | 219 | 4 | PCT-US95-09172-13 | Sequence 13, Appl |
| 29 | 156 | 58.2 | 269 | 1 | US-08-438-439C-18 | Sequence 18, Appl |
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| 43 | 15 | 5.6 | 19 | 2 | US-09-537-817B-10 | Sequence 10, Appl |
| 44 | 13 | 4.9 | 13 | 2 | US-09-537-817B-9 | Sequence 9, Appli |
| 45 | 11 | 4.1 | 15 | 2 | US-09-537-817B-2 | Sequence 2, Appli |

ALIGNMENTS

RESULT 1
US-09-949-016-7942
; Sequence 7942, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7942
; LENGTH: 268
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-7942

Query Match 100.0%; Score 268; DB 2; Length 268;
Best Local Similarity 100.0%; Pred. No. 2.7e-245;
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Db        241 SPIKPKIPLSAPRKNTNSVKYRLKFRFG 268
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RESULT 2
US-09-023-082A-15
; Sequence 15, Application US/09023082A
; Patent No. 6077692
;  GENERAL INFORMATION:
;    APPLICANT:  RUBEN, STEVEN M.
;    APPLICANT:  JIMENEZ, PABLO
;    APPLICANT:  DUAN, D. ROXANNE
;    APPLICANT:  RAMPY, MARK A.
;    APPLICANT:  MENDRICK, DONNA
;    APPLICANT:  ZHANG, JUN
;    APPLICANT:  NI, JIAN
;    APPLICANT:  MOORE, PAUL A.
;    APPLICANT:  COLEMAN, TIMOTHY A.
;    APPLICANT:  GRUBER, JOACHIM R.
;    APPLICANT:  DILLON, PATRICK J.
;    APPLICANT:  GENTZ, REINER L.
;    TITLE OF INVENTION:  KERATINOCYTE GROWTH FACTOR-2
;    NUMBER OF SEQUENCES:  148
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
;      STREET:  1100 NEW YORK AVE, NW, SUITE 600
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20005-3934
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/023,082A
;      FILING DATE:  13-FEB-1998
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US95/01790
;      FILING DATE:  14-FEB-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/461,195
;      FILING DATE:  05-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/023,852
;      FILING DATE:  13-AUG-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/039,045
;      FILING DATE:  28-FEB-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/862,432
;      FILING DATE:  23-MAY-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/910,875
;      FILING DATE:  13-AUG-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/055,561
;      FILING DATE:  13-AUG-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
;      REFERENCE/DOCKET NUMBER:  1488.0360008/EKS
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-371-2600
;      TELEFAX:  202-371-2540
;  INFORMATION FOR SEQ ID NO:  15:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  not relevant
;    MOLECULE TYPE:  protein
US-09-023-082A-15

  Query Match             88.4%;  Score 237;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 5.6e-216;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 3
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; Sequence 2, Application US/09240952
; Patent No. 6331523
;  GENERAL INFORMATION:
;    APPLICANT:  Kljavin, Ivar
;    APPLICANT:  La Fleur, Monique
;    TITLE OF INVENTION:  Method of Preventing the Death of Retinal
;    TITLE OF INVENTION:  Neurons and Treating Ocular Diseases
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Genentech, Inc.
;      STREET:  1 DNA Way
;      CITY:  South San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94080
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5 inch, 1.44 Mb floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  WinPatin (Genentech)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/240,952
;      FILING DATE:  29-Jan-1999
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/041,383
;      FILING DATE:  12-Mar-98
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Svoboda, Craig G.
;      REGISTRATION NUMBER:  39,044
;      REFERENCE/DOCKET NUMBER:  P1088P1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650/225-1489
;      TELEFAX:  650/952-9881
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  Amino Acid
;      TOPOLOGY:  Linear
US-09-240-952-2

  Query Match             88.4%;  Score 237;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 5.6e-216;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
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RESULT 4
US-09-248-998-15
; Sequence 15, Application US/09248998
; Patent No. 6599879
; GENERAL INFORMATION:
;  APPLICANT: Jimenez, Pablo
;  APPLICANT: Rampy, Mark A.
;  APPLICANT: Mendrick, Donna
;  APPLICANT: Russell, Deborah
;  APPLICANT: Louie, Arthur
;  TITLE OF INVENTION: Therapeutic Uses of Keratinocyte Growth Factor-2
;  FILE REFERENCE: 1488.1060002
;  CURRENT APPLICATION NUMBER: US/09/248,998
;  CURRENT FILING DATE: 1999-02-12
;  EARLIER APPLICATION NUMBER: US 60/114,387
;  EARLIER FILING DATE: 30-DEC-1998
;  EARLIER APPLICATION NUMBER: US 60/074,585
;  EARLIER FILING DATE: 13-FEB-1998
;  NUMBER OF SEQ ID NOS: 148
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-248-998-15

  Query Match            88.4%;  Score 237;  DB 2;  Length 268;
  Best Local Similarity  100.0%;  Pred. No. 5.6e-216;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
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Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 5
US-09-610-651-15
; Sequence 15, Application US/09610651
; Patent No. 6693077
; GENERAL INFORMATION:
;  APPLICANT:  Ruben, Steven M.
;  APPLICANT:  Jimenez, Pablo
;  APPLICANT:  Duan, D. Roxanne
;  APPLICANT:  Rampy, Mark A.
;  APPLICANT:  Mendrick, Donna
;  APPLICANT:  Zhang, Jun
;  APPLICANT:  Ni, Jian
;  APPLICANT:  Moore, Paul A.
;  APPLICANT:  Coleman, Timothy A.
;  APPLICANT:  Gruber, Joachim R.
;  APPLICANT:  Dillon, Patrick J.
;  APPLICANT:  Gentz, Reiner L.
;  TITLE OF INVENTION:  Keratinocyte Growth Factor-2
;  FILE REFERENCE:  1488.036000J
;  CURRENT APPLICATION NUMBER: US/09/610,651
;  CURRENT FILING DATE:  2000-06-30
;  PRIOR APPLICATION NUMBER:  PCT/US95/01790
;  PRIOR FILING DATE:  1995-02-14
;  PRIOR APPLICATION NUMBER:  08/461,195
;  PRIOR FILING DATE:  1995-06-05
;  PRIOR APPLICATION NUMBER:  08/696,135
;  PRIOR FILING DATE:  1996-08-13
;  PRIOR APPLICATION NUMBER:  08/862,432
;  PRIOR FILING DATE:  1997-05-23
;  PRIOR APPLICATION NUMBER:  60/023,852
;  PRIOR FILING DATE:  1996-08-13
;  PRIOR APPLICATION NUMBER:  60/039,045
;  PRIOR FILING DATE:  1997-02-28
;  PRIOR APPLICATION NUMBER:  60/055,561
;  PRIOR FILING DATE:  1997-08-13
;  PRIOR APPLICATION NUMBER:  08/910,875
;  PRIOR FILING DATE:  1997-08-13
;  PRIOR APPLICATION NUMBER:  09/023,082
;  PRIOR FILING DATE:  1998-02-13
;  PRIOR APPLICATION NUMBER:  09/345,373
;  PRIOR FILING DATE:  1999-07-01
;  PRIOR APPLICATION NUMBER:  60/142,343
;  PRIOR FILING DATE:  1999-07-02
;  PRIOR APPLICATION NUMBER:  60/143,648
;  PRIOR FILING DATE:  1999-07-14
;  PRIOR APPLICATION NUMBER:  60/144,024
;  PRIOR FILING DATE:  1999-07-15
;  PRIOR APPLICATION NUMBER:  60/148,628
;  PRIOR FILING DATE:  1999-08-12
;  PRIOR APPLICATION NUMBER:  60/149,935
;  PRIOR FILING DATE:  1999-09-24
;  PRIOR APPLICATION NUMBER:  60/163,375
;  PRIOR FILING DATE:  1999-11-03
;  PRIOR APPLICATION NUMBER:  60/171,677
;  PRIOR FILING DATE:  1999-12-22
;  PRIOR APPLICATION NUMBER:  60/205,417
;  PRIOR FILING DATE:  2000-05-19
;  PRIOR APPLICATION NUMBER:  60/198,322
;  PRIOR FILING DATE:  2000-04-19
;  NUMBER OF SEQ ID NOS:  176
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 15
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-610-651-15

  Query Match            88.4%;  Score 237;  DB 2;  Length 268;
  Best Local Similarity  100.0%;  Pred. No. 5.6e-216;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
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RESULT 6
US-09-345-373-15
; Sequence 15, Application US/09345373
; Patent No. 6903072
;  GENERAL INFORMATION:
;    APPLICANT:  RUBEN, STEVEN M.
;    APPLICANT:  JIMENEZ, PABLO
;    APPLICANT:  DUAN, D. ROXANNE
;    APPLICANT:  RAMPY, MARK A.
;    APPLICANT:  MENDRICK, DONNA
;    APPLICANT:  ZHANG, JUN
;    APPLICANT:  NI, JIAN
;    APPLICANT:  MOORE, PAUL A.
;    APPLICANT:  COLEMAN, TIMOTHY A.
;    APPLICANT:  GRUBER, JOACHIM R.
;    APPLICANT:  DILLON, PATRICK J.
;    APPLICANT:  GENTZ, REINER L.
;    TITLE OF INVENTION:  KERATINOCYTE GROWTH FACTOR-2
;    NUMBER OF SEQUENCES:  148
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
;      STREET:  1100 NEW YORK AVE, NW, SUITE 600
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20005-3934
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/345,373
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/023,082
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/461,195
;      FILING DATE:  05-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/023,852
;      FILING DATE:  13-AUG-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/039,045
;      FILING DATE:  28-FEB-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/862,432
;      FILING DATE:  23-MAY-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/910,875
;      FILING DATE:  13-AUG-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/055,561
;      FILING DATE:  13-AUG-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
;      REFERENCE/DOCKET NUMBER:  1488.0360008/EKS
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-371-2600
;      TELEFAX:  202-371-2540
;  INFORMATION FOR SEQ ID NO:  15:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  No. 6903072 Relevant
;      TOPOLOGY:  No. 6903072 Relevant
;    MOLECULE TYPE:  protein
US-09-345-373-15

  Query Match             88.4%;  Score 237;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 5.6e-216;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 7
US-10-075-446-15
; Sequence 15, Application US/10075446
; Patent No. 6916786
;  GENERAL INFORMATION:
;       APPLICANT: RUBEN, STEVEN M.
;                  JIMENEZ, PABLO
;                  DUAN, D. ROXANNE
;                  RAMPY, MARK A.
;                  MENDRICK, DONNA
;                  ZHANG, JUN
;                  NI, JIAN
;                  MOORE, PAUL A.
;                  COLEMAN, TIMOTHY A.
;                  GRUBER, JOACHIM R.
;       TITLE OF INVENTION: KERATINOCYTE GROWTH FACTOR-2
;       NUMBER OF SEQUENCES: 148
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
;            STREET: 1100 NEW YORK AVE, NW, SUITE 600
;            CITY: WASHINGTON
;            STATE: DC
;            COUNTRY: USA
;            ZIP: 20005-3934
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.30
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/10/075,446
;            FILING DATE: 15-Feb-2002
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: 09/023,082
;            FILING DATE: <Unknown>
;            APPLICATION NUMBER: PCT/US95/01790
;            FILING DATE: 14-FEB-1995
;            APPLICATION NUMBER: US 08/461,195
;            FILING DATE: 05-JUN-1995
;            APPLICATION NUMBER: US 60/023,852
;            FILING DATE: 13-AUG-1996
;            APPLICATION NUMBER: US 60/039,045
;            FILING DATE: 28-FEB-1997
;            APPLICATION NUMBER: US 08/862,432
;            FILING DATE: 23-MAY-1997
;            APPLICATION NUMBER: US 08/910,875
;            FILING DATE: 13-AUG-1997
;            APPLICATION NUMBER: US 60/055,561
;            FILING DATE: 13-AUG-1997
;       ATTORNEY/AGENT INFORMATION:
;            NAME: STEFFFE, ERIC K.
;            REGISTRATION NUMBER: 36,688
```

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;            REFERENCE/DOCKET NUMBER: 1488.0360008/EKS
;          TELECOMMUNICATION INFORMATION:
;            TELEPHONE: 202-371-2600
;            TELEFAX: 202-371-2540
;     INFORMATION FOR SEQ ID NO: 15:
;          SEQUENCE CHARACTERISTICS:
;            LENGTH: 268 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: No. 6916786 Relevant
;            TOPOLOGY: No. 6916786 Relevant
;          MOLECULE TYPE: protein
;          SEQUENCE DESCRIPTION: SEQ ID NO: 15:
US-10-075-446-15

  Query Match             88.4%;  Score 237;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 5.6e-216;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 8
US-09-240-952-3
; Sequence 3, Application US/09240952
; Patent No. 6331523
;  GENERAL INFORMATION:
;    APPLICANT:  Kljavin, Ivar
;    APPLICANT:  La Fleur, Monique
;    TITLE OF INVENTION:  Method of Preventing the Death of Retinal
;    TITLE OF INVENTION:  Neurons and Treating Ocular Diseases
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Genentech, Inc.
;      STREET:  1 DNA Way
;      CITY:  South San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94080
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5 inch, 1.44 Mb floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  WinPatin (Genentech)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/240,952
;      FILING DATE:  29-Jan-1999
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/041,383
;      FILING DATE:  12-Mar-98
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Svoboda, Craig G.
;      REGISTRATION NUMBER:  39,044
;      REFERENCE/DOCKET NUMBER:  P1088P1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650/225-1489
;      TELEFAX:  650/952-9881
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  248 amino acids
;      TYPE:  Amino Acid
;      TOPOLOGY:  Linear
US-09-240-952-3

  Query Match             80.6%;  Score 216;  DB 2;  Length 248;
  Best Local Similarity   100.0%;  Pred. No. 3.8e-196;
  Matches  216;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQW 81
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          2 GEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQW 61

Qy         82 SPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKF 141
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         62 SPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKF 121

Qy        142 LAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRG 201
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        122 LAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRG 181

Qy        202 CSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
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Db        182 CSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 217


RESULT 9
US-09-240-952-5
; Sequence 5, Application US/09240952
; Patent No. 6331523
;  GENERAL INFORMATION:
;    APPLICANT:  Kljavin, Ivar
;    APPLICANT:  La Fleur, Monique
;    TITLE OF INVENTION:  Method of Preventing the Death of Retinal
;    TITLE OF INVENTION:  Neurons and Treating Ocular Diseases
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Genentech, Inc.
;      STREET:  1 DNA Way
;      CITY:  South San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94080
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5 inch, 1.44 Mb floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  WinPatin (Genentech)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/240,952
;      FILING DATE:  29-Jan-1999
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/041,383
;      FILING DATE:  12-Mar-98
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Svoboda, Craig G.
;      REGISTRATION NUMBER:  39,044
;      REFERENCE/DOCKET NUMBER:  P1088P1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650/225-1489
;      TELEFAX:  650/952-9881
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  247 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  Linear
US-09-240-952-5

  Query Match             80.2%;  Score 215;  DB 2;  Length 247;
  Best Local Similarity   100.0%;  Pred. No. 3.3e-195;
  Matches  215;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy         23 EKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 82
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          2 EKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 61

Qy         83 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 142
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         62 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 121

Qy        143 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 202
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        122 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 181

Qy        203 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
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Db        182 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 216


RESULT 10
US-08-439-725A-12
; Sequence 12, Application US/08439725A
; Patent No. 5693775
;  GENERAL INFORMATION:
;    APPLICANT:  Nathans, Jeremy
;    APPLICANT:  Smallwood, Philip M.
;    APPLICANT:  Macke, Jennifer P.
;    TITLE OF INVENTION:  FIBROBROBLAST GROWTH FACTOR HOMOLOGOUS
;    TITLE OF INVENTION:  FACTOR-1 (FHF-1) AND METHODS OF USE
;    NUMBER OF SEQUENCES:  15
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/439,725A
;      FILING DATE:  12-MAY-1995
;      CLASSIFICATION:  424
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Haile, Lisa A.
;      REGISTRATION NUMBER:  38,347
;      REFERENCE/DOCKET NUMBER:  07265/047001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/678-5070
;      TELEFAX:  617/678-5099
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-439-725A-12

  Query Match             72.8%;  Score 195;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-176;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy        223 EQPELSFTVTVPEKK 237
              |||||||||||||||
Db        223 EQPELSFTVTVPEKK 237


RESULT 11
US-08-464-590A-17
; Sequence 17, Application US/08464590A
; Patent No. 5763214
;  GENERAL INFORMATION:
;    APPLICANT:  HU, JING-SHAN
;    APPLICANT:  ROSEN, CRAIG A.
;    TITLE OF INVENTION:  FIBROBLAST GROWTH FACTOR-11
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  CARELLA, BYRNE, BAIN, GILFILLAN, CECCHI,
;      ADDRESSEE:  STEWART & OLSTEIN
;      STREET:  6 BECKER FARM ROAD
;      CITY:  ROSELAND
;      STATE:  NJ
;      COUNTRY:  US
;      ZIP:  07068
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/464,590A
;      FILING DATE:  05-JUN-1995
;      CLASSIFICATION:  536
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  MULLINS, J. G.
;      REGISTRATION NUMBER:  30,073
;      REFERENCE/DOCKET NUMBER:  325800-438
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (201) 994-1700
;      TELEFAX:  (201) 994-1744
;  INFORMATION FOR SEQ ID NO:  17:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-464-590A-17

  Query Match             72.8%;  Score 195;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-176;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Qy        223 EQPELSFTVTVPEKK 237
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Db        223 EQPELSFTVTVPEKK 237


RESULT 12
US-08-207-412B-12
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; Sequence 12, Application US/08207412B
; Patent No. 5817485
;  GENERAL INFORMATION:
;    APPLICANT:  Hu, Jing-Shan
;    TITLE OF INVENTION:  Fibroblast Growth Factor-10
;    NUMBER OF SEQUENCES:  15
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Carella, Byrne, Bain, Gilfillan, Cecchi,
;      ADDRESSEE:  Stewart & Olstein
;      STREET:  6 Becker Farm Road
;      CITY:  Roseland
;      STATE:  NJ
;      COUNTRY:  USA
;      ZIP:  07068-1739
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/207,412B
;      FILING DATE:  08-MAR-1994
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Ferraro, Gregory D
;      REGISTRATION NUMBER:  36,134
;      REFERENCE/DOCKET NUMBER:  325800-100
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  201-994-1700
;      TELEFAX:  201-994-1744
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-207-412B-12

  Query Match             72.8%;  Score 195;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-176;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Db          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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Db         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy         223 EQPELSFTVTVPEKK 237
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Db         223 EQPELSFTVTVPEKK 237


RESULT 13
US-08-867-471-12
; Sequence 12, Application US/08867471
; Patent No. 5872226
;  GENERAL INFORMATION:
;    APPLICANT:  Nathans, Jeremy
;    APPLICANT:  Smallwood, Philip M.
;    APPLICANT:  Macke, Jennifer P.
;    TITLE OF INVENTION:  FIBROBROBLAST GROWTH FACTOR HOMOLOGOUS
;    TITLE OF INVENTION:  FACTOR-1 (FHF-1) AND METHODS OF USE
;    NUMBER OF SEQUENCES:  15
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/867,471
;      FILING DATE:  02-JUN-1997
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/439,725
;      FILING DATE:  12-MAY-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Haile, Lisa A.
;      REGISTRATION NUMBER:  38,347
;      REFERENCE/DOCKET NUMBER:  07265/047001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/678-5070
;      TELEFAX:  617/678-5099
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-867-471-12

  Query Match             72.8%;  Score 195;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-176;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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Qy         223 EQPELSFTVTVPEKK 237
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RESULT 14
US-08-438-439C-8
; Sequence 8, Application US/08438439C
; Patent No. 5876967
;  GENERAL INFORMATION:
;    APPLICANT:  Nathans, Jeremy
;    APPLICANT:  Smallwood, Phillip M.
;    APPLICANT:  Macke, Jennifer P.
;    TITLE OF INVENTION:  FIBROBROBLAST GROWTH FACTOR HOMOLOGOUS
;    TITLE OF INVENTION:  FACTOR-2 AND METHODS OF USE
;    NUMBER OF SEQUENCES:  25
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
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;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/438,439C
;      FILING DATE:  May 12, 1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Haile, Lisa A.
;      REGISTRATION NUMBER:  38,347
;      REFERENCE/DOCKET NUMBER:  07265/046001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/678-5070
;      TELEFAX:  619/678-5099
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  not relevant
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-438-439C-8

  Query Match             72.8%;  Score 195;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-176;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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Qy         223 EQPELSFTVTVPEKK 237
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Db         223 EQPELSFTVTVPEKK 237


RESULT 15
US-08-951-822-33
; Sequence 33, Application US/08951822A
; Patent No. 5989866
; GENERAL INFORMATION:
;  APPLICANT: Deisher, Theresa A.
;  APPLICANT: Conklin, Darrell C.
;  APPLICANT: Raymond, Fenella
;  APPLICANT: Bukowski, Thomas R.
;  APPLICANT: Holderman, Susan D.
;  APPLICANT: Hansen, Birgit
;  APPLICANT: Sheppard, Paul O.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20
;  CURRENT APPLICATION NUMBER: US/08/951,822A
;  CURRENT FILING DATE: 1997-10-16
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-08-951-822-33

  Query Match             72.8%;  Score 195;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-176;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Db          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Db         223 EQPELSFTVTVPEKK 237


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GenCore version 5.1.7


OM protein - protein search, using sw model

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Title: US-10-089-485-18
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 1867569 seqs, 417829326 residues

Word size : 1

Total number of hits satisfying chosen parameters: 1866650

Minimum DB seq length: 0
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Post-processing: Listing first 45 summaries

Database : Published_Applications_AA_Main:*
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2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
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| 1 | 237 | 88.4 | 268 | 3 | US-09-345-373-15 | Sequence 15, Appl |
| 2 | 237 | 88.4 | 268 | 4 | US-10-075-446-15 | Sequence 15, Appl |
| 3 | 237 | 88.4 | 268 | 4 | US-10-035-212-15 | Sequence 15, Appl |
| 4 | 237 | 88.4 | 268 | 5 | US-10-733-311-15 | Sequence 15, Appl |
| 5 | 237 | 88.4 | 268 | 5 | US-10-868-577A-27 | Sequence 27, Appl |
| 6 | 237 | 88.4 | 268 | 5 | US-10-901-210-15 | Sequence 15, Appl |
| 7 | 195 | 72.8 | 268 | 3 | US-09-284-663A-10 | Sequence 10, Appl |
| 8 | 195 | 72.8 | 268 | 3 | US-09-750-963-11 | Sequence 11, Appl |
| 9 | 195 | 72.8 | 268 | 3 | US-09-902-773A-7 | Sequence 7, Appli |
| 10 | 195 | 72.8 | 268 | 3 | US-09-251-263-12 | Sequence 12, Appl |
| 11 | 195 | 72.8 | 268 | 4 | US-10-081-347-33 | Sequence 33, Appl |
| 12 | 195 | 72.8 | 268 | 4 | US-10-189-360-14 | Sequence 14, Appl |
| 13 | 195 | 72.8 | 268 | 4 | US-10-192-988-8 | Sequence 8, Appli |
| 14 | 195 | 72.8 | 268 | 4 | US-10-315-431-33 | Sequence 33, Appl |
| 15 | 195 | 72.8 | 268 | 4 | US-10-347-177-11 | Sequence 11, Appl |
| 16 | 195 | 72.8 | 268 | 4 | US-10-372-653-11 | Sequence 11, Appl |
| 17 | 195 | 72.8 | 268 | 4 | US-10-037-922-33 | Sequence 33, Appl |
| 18 | 195 | 72.8 | 268 | 5 | US-10-854-485-33 | Sequence 33, Appl |
| 19 | 195 | 72.8 | 268 | 5 | US-10-413-537-10 | Sequence 10, Appl |
| 20 | 182 | 67.9 | 266 | 4 | US-10-131-965-9 | Sequence 9, Appli |
| 21 | 172 | 64.2 | 219 | 4 | US-10-016-447-13 | Sequence 13, Appl |
| 22 | 156 | 58.2 | 269 | 4 | US-10-192-988-18 | Sequence 18, Appl |
| 23 | 151 | 56.3 | 247 | 4 | US-10-023-592-9 | Sequence 9, Appli |
| 24 | 151 | 56.3 | 266 | 4 | US-10-131-965-15 | Sequence 15, Appl |
| 25 | 151 | 56.3 | 267 | 3 | US-09-822-485-8 | Sequence 8, Appli |
| 26 | 151 | 56.3 | 267 | 3 | US-09-425-021-13 | Sequence 13, Appl |
| 27 | 151 | 56.3 | 267 | 4 | US-10-023-592-7 | Sequence 7, Appli |
| 28 | 151 | 56.3 | 267 | 4 | US-10-374-207-8 | Sequence 8, Appli |
| 29 | 151 | 56.3 | 267 | 4 | US-10-123-481-7 | Sequence 7, Appli |
| 30 | 151 | 56.3 | 267 | 5 | US-10-935-226-7 | Sequence 7, Appli |
| 31 | 151 | 56.3 | 267 | 5 | US-10-932-284-7 | Sequence 7, Appli |
| 32 | 151 | 56.3 | 268 | 4 | US-10-690-019-14 | Sequence 14, Appl |
| 33 | 144 | 53.7 | 144 | 3 | US-09-901-938-27 | Sequence 27, Appl |
| 34 | 144 | 53.7 | 144 | 4 | US-10-379-334-27 | Sequence 27, Appl |
| 35 | 82 | 30.6 | 82 | 3 | US-09-801-968-39 | Sequence 39, Appl |
| 36 | 82 | 30.6 | 82 | 3 | US-09-802-154-39 | Sequence 39, Appl |
| 37 | 11 | 4.1 | 173 | 4 | US-10-767-701-41558 | Sequence 41558, A |
| 38 | 11 | 4.1 | 287 | 4 | US-10-425-114-59971 | Sequence 59971, A |
| 39 | 10 | 3.7 | 10 | 3 | US-09-572-404B-3798 | Sequence 3798, Ap |
| 40 | 10 | 3.7 | 10 | 3 | US-09-572-404B-3799 | Sequence 3799, Ap |
| 41 | 10 | 3.7 | 109 | 4 | US-10-451-467A-282 | Sequence 282, App |
| 42 | 10 | 3.7 | 359 | 4 | US-10-437-963-187082 | Sequence 187082, |
| 43 | 10 | 3.7 | 502 | 6 | US-11-097-143-23466 | Sequence 23466, A |
| 44 | 9 | 3.4 | 9 | 4 | US-10-424-955A-36 | Sequence 36, Appl |
| 45 | 9 | 3.4 | 9 | 5 | US-10-982-514-37 | Sequence 37, Appl |

ALIGNMENTS

RESULT 1
US-09-345-373-15
; Sequence 15, Application US/09345373
; Publication No. US20030077695A1
; GENERAL INFORMATION:
; APPLICANT: RUBEN, STEVEN M.
; APPLICANT: JIMENEZ, PABLO
; APPLICANT: DUAN, D. ROXANNE
; APPLICANT: RAMPY, MARK A.
; APPLICANT: MENDRICK, DONNA
; APPLICANT: ZHANG, JUN
; APPLICANT: NI, JIAN
; APPLICANT: MOORE, PAUL A.
; APPLICANT: COLEMAN, TIMOTHY A.
; APPLICANT: GRUBER, JOACHIM R.
; APPLICANT: DILLON, PATRICK J.
; APPLICANT: GENTZ, REINER L.
; TITLE OF INVENTION: KERATINOCYTE GROWTH FACTOR-2
; NUMBER OF SEQUENCES: 148
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
; STREET: 1100 NEW YORK AVE, NW, SUITE 600
; CITY: WASHINGTON
; STATE: DC
; COUNTRY: USA
; ZIP: 20005-3934
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/345,373
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/023,082
; FILING DATE:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/461,195
; FILING DATE: 05-JUN-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/023,852
; FILING DATE: 13-AUG-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/039,045
; FILING DATE: 28-FEB-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/862,432
; FILING DATE: 23-MAY-1997

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;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/910,875
;      FILING DATE:  13-AUG-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/055,561
;      FILING DATE:  13-AUG-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
;      REFERENCE/DOCKET NUMBER:  1488.0360008/EKS
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-371-2600
;      TELEFAX:  202-371-2540
;  INFORMATION FOR SEQ ID NO:  15:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  268 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  No. US20030077695A1 Relevant
;      TOPOLOGY:  No. US20030077695A1 Relevant
;    MOLECULE TYPE:  protein
US-09-345-373-15

  Query Match             88.4%;  Score 237;  DB 3;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-210;
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Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 2
US-10-075-446-15
; Sequence 15, Application US/10075446
; Publication No. US20030129687A1
;   GENERAL INFORMATION:
;        APPLICANT: RUBEN, STEVEN M.
;                   JIMENEZ, PABLO
;                   DUAN, D. ROXANNE
;                   RAMPY, MARK A.
;                   MENDRICK, DONNA
;                   ZHANG, JUN
;                   NI, JIAN
;                   MOORE, PAUL A.
;                   COLEMAN, TIMOTHY A.
;                   GRUBER, JOACHIM R.
;        TITLE OF INVENTION: KERATINOCYTE GROWTH FACTOR-2
;        NUMBER OF SEQUENCES: 148
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
;             STREET: 1100 NEW YORK AVE, NW, SUITE 600
;             CITY: WASHINGTON
;             STATE: DC
;             COUNTRY: USA
;             ZIP: 20005-3934
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/075,446
;             FILING DATE: 15-Feb-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 09/023,082
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US95/01790
;             FILING DATE: 14-FEB-1995
;             APPLICATION NUMBER: US 08/461,195
;             FILING DATE: 05-JUN-1995
;             APPLICATION NUMBER: US 60/023,852
;             FILING DATE: 13-AUG-1996
;             APPLICATION NUMBER: US 60/039,045
;             FILING DATE: 28-FEB-1997
;             APPLICATION NUMBER: US 08/862,432
;             FILING DATE: 23-MAY-1997
;             APPLICATION NUMBER: US 08/910,875
;             FILING DATE: 13-AUG-1997
;             APPLICATION NUMBER: US 60/055,561
;             FILING DATE: 13-AUG-1997
;        ATTORNEY/AGENT INFORMATION:
;             NAME: STEFFFE, ERIC K.
;             REGISTRATION NUMBER: 36,688
;             REFERENCE/DOCKET NUMBER: 1488.0360008/EKS
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 202-371-2600
;             TELEFAX: 202-371-2540
;   INFORMATION FOR SEQ ID NO: 15:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 268 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: No. US20030129687A1 Relevant
;             TOPOLOGY: No. US20030129687A1 Relevant
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 15:
US-10-075-446-15

  Query Match             88.4%;  Score 237;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-210;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 3
US-10-035-212-15
; Sequence 15, Application US/10035212
; Publication No. US20030186904A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben, Steven M.
;  APPLICANT:  Jimenez, Pablo
;  APPLICANT:  Duan, D. Roxanne
;  APPLICANT:  Rampy, Mark A.
;  APPLICANT:  Mendrick, Donna
;  APPLICANT:  Zhang, Jun
;  APPLICANT:  Ni, Jian
;  APPLICANT:  Moore, Paul A.
;  APPLICANT:  Coleman, Timothy A.
;  APPLICANT:  Gruber, Joachim R.
```

```
;  APPLICANT:  Dillon, Patrick J.
;  APPLICANT:  Gentz, Reiner L.
;  TITLE OF INVENTION: Keratinocyte Growth Factor-2
;  FILE REFERENCE: 1488.0360000
;  CURRENT APPLICATION NUMBER: US/10/035,212
;  CURRENT FILING DATE:  2002-01-04
;  PRIOR APPLICATION NUMBER: 60/259,853
;  PRIOR FILING DATE: 2001-01-05
;  PRIOR APPLICATION NUMBER: 60/286,368
;  PRIOR FILING DATE: 2001-04-26
;  PRIOR APPLICATION NUMBER: 60/331,168
;  PRIOR FILING DATE: 2001-11-09
;  NUMBER OF SEQ ID NOS: 176
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
;    LENGTH: 268
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-10-035-212-15

  Query Match             88.4%;  Score 237;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-210;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 4
US-10-733-311-15
; Sequence 15, Application US/10733311
; Publication No. US20040224387A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben, Steven M.
;  APPLICANT:  Jimenez, Pablo
;  APPLICANT:  Duan, D. Roxanne
;  APPLICANT:  Rampy, Mark A.
;  APPLICANT:  Mendrick, Donna
;  APPLICANT:  Zhang, Jun
;  APPLICANT:  Ni, Jian
;  APPLICANT:  Moore, Paul A.
;  APPLICANT:  Coleman, Timothy A.
;  APPLICANT:  Gruber, Joachim R.
;  APPLICANT:  Dillon, Patrick J.
;  APPLICANT:  Gentz, Reiner L.
;  TITLE OF INVENTION: Keratinocyte Growth Factor-2
;  FILE REFERENCE: 1488.036000J
;  CURRENT APPLICATION NUMBER: US/10/733,311
;  CURRENT FILING DATE:  2003-12-12
;  PRIOR APPLICATION NUMBER: US/09/610,651
;  PRIOR FILING DATE: 2000-06-30
;  PRIOR APPLICATION NUMBER: PCT/US95/01790
;  PRIOR FILING DATE: 1995-02-14
;  PRIOR APPLICATION NUMBER: 08/461,195
;  PRIOR FILING DATE: 1995-06-05
;  PRIOR APPLICATION NUMBER: 08/696,135
;  PRIOR FILING DATE: 1996-08-13
;  PRIOR APPLICATION NUMBER: 08/862,432
;  PRIOR FILING DATE: 1997-05-23
;  PRIOR APPLICATION NUMBER: 60/023,852
;  PRIOR FILING DATE: 1996-08-13
;  PRIOR APPLICATION NUMBER: 60/039,045
;  PRIOR FILING DATE: 1997-02-28
;  PRIOR APPLICATION NUMBER: 60/055,561
;  PRIOR FILING DATE: 1997-08-13
;  PRIOR APPLICATION NUMBER: 08/910,875
;  PRIOR FILING DATE: 1997-08-13
;  PRIOR APPLICATION NUMBER: 09/023,082
;  PRIOR FILING DATE: 1998-02-13
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 176
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
;    LENGTH: 268
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-10-733-311-15

  Query Match             88.4%;  Score 237;  DB 5;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-210;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 5
US-10-868-577A-27
; Sequence 27, Application US/10868577A
; Publication No. US20050032697A1
; GENERAL INFORMATION:
;  APPLICANT: Alitalo et al.
;  TITLE OF INVENTION: HEPARIN BINDING VEGFR-3 LIGANDS
;  FILE REFERENCE: 28967/39359A
;  CURRENT APPLICATION NUMBER: US/10/868,577A
;  CURRENT FILING DATE:  2004-06-14
;  PRIOR APPLICATION NUMBER: US 60/478,390
;  PRIOR FILING DATE: 2003-06-12
;  PRIOR APPLICATION NUMBER: US 10/669,176
;  PRIOR FILING DATE: 2003-09-23
;  NUMBER OF SEQ ID NOS: 69
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 27
;    LENGTH: 268
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-10-868-577A-27

  Query Match             88.4%;  Score 237;  DB 5;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-210;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
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Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 6
US-10-901-210-15
; Sequence 15, Application US/10901210
; Publication No. US20050037966A1
; GENERAL INFORMATION:
;  APPLICANT: Ruben et al.
;  TITLE OF INVENTION: Keratinocyte Growth Factor-2
;  FILE REFERENCE: PF155P2D1
;  CURRENT APPLICATION NUMBER: US/10/901,210
;  CURRENT FILING DATE:  2004-07-29
;  PRIOR APPLICATION NUMBER: 10/035,212
;  PRIOR FILING DATE: 2002-01-04
;  PRIOR APPLICATION NUMBER: 60/259,853
;  PRIOR FILING DATE: 2001-01-08
;  PRIOR APPLICATION NUMBER: 60/286,368
;  PRIOR FILING DATE: 2001-04-26
;  PRIOR APPLICATION NUMBER: 60/331,168
;  PRIOR FILING DATE: 2001-11-09
;  NUMBER OF SEQ ID NOS: 176
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-901-210-15

  Query Match             88.4%;  Score 237;  DB 5;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 4.8e-210;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
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Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
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Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
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Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 7
US-09-284-663A-10
; Sequence 10, Application US/09284663A
; Patent No. US20020012961A1
; GENERAL INFORMATION:
;  APPLICANT:  Botstein, David A.
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Lawrence, David A.
;  APPLICANT:  Roy, Margaret Ann
;  TITLE OF INVENTION:  Fibroblast Growth Factor-19
;  FILE REFERENCE:  P1219R1(e)
;  CURRENT APPLICATION NUMBER: US/09/284,663A
;  CURRENT FILING DATE:  1999-04-15
;  NUMBER OF SEQ ID NOS:  30
; SEQ ID NO 10
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-284-663A-10

  Query Match             72.8%;  Score 195;  DB 3;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-171;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy        223 EQPELSFTVTVPEKK 237
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Db        223 EQPELSFTVTVPEKK 237


RESULT 8
US-09-750-963-11
; Sequence 11, Application US/09750963
; Patent No. US20020031805A1
; GENERAL INFORMATION:
;  APPLICANT:  Conklin, Darrell C.
;  TITLE OF INVENTION:  NOVEL FGF HOMOLOG ZFGF10
;  FILE REFERENCE:  99-83
;  CURRENT APPLICATION NUMBER: US/09/750,963
;  CURRENT FILING DATE:  2000-12-28
;  PRIOR APPLICATION NUMBER:  US 60/173,578
;  PRIOR FILING DATE:  1999-12-29
;  NUMBER OF SEQ ID NOS:  15
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 11
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-750-963-11

  Query Match             72.8%;  Score 195;  DB 3;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-171;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy        223 EQPELSFTVTVPEKK 237
              |||||||||||||||
Db        223 EQPELSFTVTVPEKK 237


RESULT 9
US-09-902-773A-7
; Sequence 7, Application US/09902773A
; Patent No. US20020034787A1
;   GENERAL INFORMATION:
;        APPLICANT: HU, JING-SHAN
```

```
;                GOCAYNE, JEANNINE D.
;        TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR-10
;        NUMBER OF SEQUENCES: 14
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX
;             STREET: 1100 NEW YORK AVENUE, SUITE 600
;             CITY: WASHINGTON
;             STATE: DC
;             COUNTRY: US
;             ZIP: 20005-3934
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/902,773A
;             FILING DATE: 12-Jul-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/803,926
;             FILING DATE: 21-FEB-1997
;        ATTORNEY/AGENT INFORMATION:
;             NAME: STEFFE, ERIC K.
;             REGISTRATION NUMBER: 36,688
;             REFERENCE/DOCKET NUMBER: 1488.0350001
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (202) 371-2600
;             TELEFAX: (202) 371-2540
;    INFORMATION FOR SEQ ID NO: 7:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 268 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 7:
US-09-902-773A-7

  Query Match             72.8%;  Score 195;  DB 3;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-171;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy         223 EQPELSFTVTVPEKK 237
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Db         223 EQPELSFTVTVPEKK 237


RESULT 10
US-09-251-263-12
; Sequence 12, Application US/09251263
; Patent No. US20020052477A1
; GENERAL INFORMATION:
;  APPLICANT: Nathans, Jeremy
;  APPLICANT: Smallwood, Philip M.
;  APPLICANT: Macke, Jennifer P.
;  TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR HOMOLOGOUS
;  TITLE OF INVENTION: FACTOR-1 (FHF-1) AND METHODS OF USE
;  FILE REFERENCE: 07265/047003
;  CURRENT APPLICATION NUMBER: US/09/251,263
;  CURRENT FILING DATE: 1999-02-16
;  EARLIER APPLICATION NUMBER: 08/867,471
;  EARLIER FILING DATE: 1997-06-02
;  EARLIER APPLICATION NUMBER: 08/439,725
;  EARLIER FILING DATE: 1995-05-12
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-251-263-12

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Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Db         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162

Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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Db         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy         223 EQPELSFTVTVPEKK 237
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Db         223 EQPELSFTVTVPEKK 237


RESULT 11
US-10-081-347-33
; Sequence 33, Application US/10081347
; Publication No. US20030008351A1
; GENERAL INFORMATION:
;  APPLICANT: Deisher, Theresa A.
;  APPLICANT:  Conklin, Darrell C.
;  APPLICANT:  Raymond, Fenella
;  APPLICANT:  Bukowski, Thomas R.
;  APPLICANT:  Holderman, Susan D.
;  APPLICANT:  Hansen, Birgit
;  APPLICANT:  Sheppard, Paul O.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20C1
;  CURRENT APPLICATION NUMBER: US/10/081,347
;  CURRENT FILING DATE:  2002-02-21
;  PRIOR APPLICATION NUMBER: US/09/229,947
;  PRIOR FILING DATE: 1999-01-13
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-081-347-33

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Db        223 EQPELSFTVTVPEKK 237


RESULT 12
US-10-189-360-14
; Sequence 14, Application US/10189360
; Publication No. US20030143217A1
;  GENERAL INFORMATION:
;       APPLICANT: Baird, J. Andrew
;                  Chandler, Lois Ann
;                  Sosnowski, Barbara A.
;       TITLE OF INVENTION: COMPOSITIONS CONTAINING NUCLEIC ACIDS AND LIGANDS
;                           FOR THERAPE
;       NUMBER OF SEQUENCES: 128
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: SEED and BERRY LLP
;            STREET: 6300 Columbia Center, 701 Fifth Avenue
;            CITY: Seattle
;            STATE: Washington
;            COUNTRY: USA
;            ZIP: 98104-7092
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/10/189,360
;            FILING DATE: 02-Jul-2002
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US/08/718,904
;            FILING DATE: 24-SEP-1996
;       ATTORNEY/AGENT INFORMATION:
;            NAME: No. US20030143217Altenburg Ph.D., Carol
;            REGISTRATION NUMBER: 39,317
;            REFERENCE/DOCKET NUMBER: 760100.415C1
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (206) 622-4900
;            TELEFAX: (206) 682-6031
;  INFORMATION FOR SEQ ID NO: 14:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 268 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: unknown
;       MOLECULE TYPE: peptide
;       FEATURE:
;            OTHER INFORMATION:  /note= "FGF-5"
;       SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-10-189-360-14

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Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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Db        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy        223 EQPELSFTVTVPEKK 237
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Db        223 EQPELSFTVTVPEKK 237


RESULT 13
US-10-192-988-8
; Sequence 8, Application US/10192988
; Publication No. US20030166875A1
; GENERAL INFORMATION:
;  APPLICANT: THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE
;  APPLICANT:  NATHANS, Jeremy
;  APPLICANT:  SMALLWOOD, Philip M.
;  APPLICANT:  MACKE, Jennifer P.
;  TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR HOMOLOGOUS FACTOR-2 AND METHODS OF USE
;  FILE REFERENCE: JHU1230-2
;  CURRENT APPLICATION NUMBER: US/10/192,988
;  CURRENT FILING DATE:  2002-07-10
;  PRIOR APPLICATION NUMBER: US 09/261,007
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: US 08/438,439
;  PRIOR FILING DATE: 1995-05-12
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 8
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Unknown
;   FEATURE:
;   OTHER INFORMATION: Mammalian
US-10-192-988-8

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  Best Local Similarity   100.0%;  Pred. No. 2.7e-171;
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Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
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Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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RESULT 14
US-10-315-431-33
; Sequence 33, Application US/10315431
; Publication No. US20030199443A1
; GENERAL INFORMATION:
;  APPLICANT: Ellsworth, Jeff L.
;  APPLICANT:  Deisher, Theresa A.
;  APPLICANT:  Hughes, Steven D.
;  APPLICANT:  Moore, Emma E.
;  APPLICANT:  Wahl, Alan F.
;  TITLE OF INVENTION: NOVEL FGF HOMOLOGS
;  FILE REFERENCE: 96-20C4
;  CURRENT APPLICATION NUMBER: US/10/315,431
;  CURRENT FILING DATE:  2002-12-09
;  PRIOR APPLICATION NUMBER: US/09/634,318
;  PRIOR FILING DATE: 2000-08-09
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 33
;   LENGTH: 268
;   TYPE: PRT
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;   ORGANISM: Homo sapiens
US-10-315-431-33

  Query Match             72.8%;  Score 195;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-171;
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Db          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
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RESULT 15
US-10-347-177-11
; Sequence 11, Application US/10347177
; Publication No. US20030220483A1
; GENERAL INFORMATION:
;  APPLICANT: THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE
;  APPLICANT:  Nathans, Jeremy
;  APPLICANT:  Smallwood, Philip M.
;  APPLICANT:  Macke, Jennifer P.
;  TITLE OF INVENTION: FIBROBLAST GROWTH FACTOR HOMOLOGOUS FACTOR-1 (FHF-1) AND METHODS
;  FILE REFERENCE: JHU1240-3
;  CURRENT APPLICATION NUMBER: US/10/347,177
;  CURRENT FILING DATE:  2003-01-16
;  PRIOR APPLICATION NUMBER: US 09/251,263
;  PRIOR FILING DATE: 1999-02-16
;  PRIOR APPLICATION NUMBER: US 08/867,471
;  PRIOR FILING DATE: 1997-06-02
;  PRIOR APPLICATION NUMBER: US 08/439,725
;  PRIOR FILING DATE: 1995-05-12
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: FastSEQ for Windows Version 4.0
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US-10-347-177-11

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Db         223 EQPELSFTVTVPEKK 237


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GenCore version 5.1.7


OM protein - protein search, using sw model

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Title: US-10-089-485-18
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Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 184161 seqs, 31191982 residues

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Post-processing: Listing first 45 summaries

Database : Published_Applications_AA_New:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 268 | 100.0 | 268 | 7 | US-11-134-703-18 | Sequence 18, Appl |
| 2 | 246 | 91.8 | 246 | 7 | US-11-134-703-12 | Sequence 12, Appl |
| 3 | 195 | 72.8 | 246 | 7 | US-11-134-703-10 | Sequence 10, Appl |
| 4 | 195 | 72.8 | 268 | 7 | US-11-134-703-4 | Sequence 4, Appli |
| 5 | 182 | 67.9 | 266 | 7 | US-11-238-936-9 | Sequence 9, Appli |
| 6 | 176 | 65.7 | 176 | 7 | US-11-134-703-8 | Sequence 8, Appli |
| 7 | 151 | 56.3 | 266 | 7 | US-11-238-936-15 | Sequence 15, Appl |
| 8 | 145 | 54.1 | 176 | 7 | US-11-134-703-6 | Sequence 6, Appli |
| 9 | 60 | 22.4 | 60 | 7 | US-11-134-703-19 | Sequence 19, Appl |
| 10 | 52 | 19.4 | 52 | 7 | US-11-134-703-37 | Sequence 37, Appl |
| 11 | 49 | 18.3 | 49 | 7 | US-11-134-703-38 | Sequence 38, Appl |
| 12 | 48 | 17.9 | 48 | 7 | US-11-134-703-36 | Sequence 36, Appl |
| 13 | 10 | 3.7 | 10 | 7 | US-11-134-703-32 | Sequence 32, Appl |
| 14 | 9 | 3.4 | 188 | 7 | US-11-087-099-8568 | Sequence 8568, Ap |
| 15 | 9 | 3.4 | 413 | 7 | US-11-096-568A-20771 | Sequence 20771, A |
| 16 | 9 | 3.4 | 446 | 6 | US-10-714-887-214 | Sequence 214, App |
| 17 | 8 | 3.0 | 10 | 7 | US-11-134-703-33 | Sequence 33, Appl |
| 18 | 8 | 3.0 | 153 | 7 | US-11-096-568A-5443 | Sequence 5443, Ap |
| 19 | 8 | 3.0 | 202 | 6 | US-10-793-626-1108 | Sequence 1108, Ap |
| 20 | 8 | 3.0 | 205 | 7 | US-11-238-936-8 | Sequence 8, Appli |
| 21 | 8 | 3.0 | 207 | 7 | US-11-238-936-10 | Sequence 10, Appl |
| 22 | 8 | 3.0 | 333 | 7 | US-11-096-568A-26084 | Sequence 26084, A |
| 23 | 8 | 3.0 | 384 | 7 | US-11-096-568A-33509 | Sequence 33509, A |
| 24 | 8 | 3.0 | 388 | 7 | US-11-096-568A-33508 | Sequence 33508, A |
| 25 | 8 | 3.0 | 396 | 7 | US-11-096-568A-33507 | Sequence 33507, A |
| 26 | 8 | 3.0 | 791 | 6 | US-10-821-234-962 | Sequence 962, App |
| 27 | 8 | 3.0 | 3969 | 6 | US-10-974-127A-59 | Sequence 59, Appl |
| 28 | 7 | 2.6 | 25 | 7 | US-11-058-735-61 | Sequence 61, Appl |
| 29 | 7 | 2.6 | 54 | 7 | US-11-150-054A-34 | Sequence 34, Appl |
| 30 | 7 | 2.6 | 98 | 6 | US-10-510-386-138 | Sequence 138, App |
| 31 | 7 | 2.6 | 110 | 7 | US-11-072-512-3422 | Sequence 3422, Ap |
| 32 | 7 | 2.6 | 112 | 7 | US-11-096-568A-7612 | Sequence 7612, Ap |
| 33 | 7 | 2.6 | 115 | 7 | US-11-004-399-2629 | Sequence 2629, Ap |
| 34 | 7 | 2.6 | 133 | 6 | US-10-523-362-22 | Sequence 22, Appl |
| 35 | 7 | 2.6 | 141 | 7 | US-11-096-568A-13393 | Sequence 13393, A |
| 36 | 7 | 2.6 | 163 | 7 | US-11-172-740-2378 | Sequence 2378, Ap |
| 37 | 7 | 2.6 | 164 | 7 | US-11-207-847-4 | Sequence 4, Appli |
| 38 | 7 | 2.6 | 176 | 7 | US-11-096-568A-7838 | Sequence 7838, Ap |
| 39 | 7 | 2.6 | 180 | 7 | US-11-096-568A-12758 | Sequence 12758, A |
| 40 | 7 | 2.6 | 186 | 7 | US-11-044-899-21 | Sequence 21, Appl |
| 41 | 7 | 2.6 | 186 | 7 | US-11-044-899-22 | Sequence 22, Appl |
| 42 | 7 | 2.6 | 186 | 7 | US-11-096-568A-17455 | Sequence 17455, A |
| 43 | 7 | 2.6 | 191 | 6 | US-10-991-285-873 | Sequence 873, App |
| 44 | 7 | 2.6 | 193 | 7 | US-11-238-936-11 | Sequence 11, Appl |
| 45 | 7 | 2.6 | 198 | 7 | US-11-096-568A-18593 | Sequence 18593, A |

ALIGNMENTS

RESULT 1
US-11-134-703-18
; Sequence 18, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
; APPLICANT: Hanada et al.
; TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
; FILE REFERENCE: 67015-05
; CURRENT APPLICATION NUMBER: US/11/134,703
; CURRENT FILING DATE: 2005-05-19
; PRIOR APPLICATION NUMBER: PCT/US2003/37065
; PRIOR FILING DATE: 2003-11-19
; PRIOR APPLICATION NUMBER: US 60/427,920
; PRIOR FILING DATE: 2002-11-19
; PRIOR APPLICATION NUMBER: US 10/089,485
; PRIOR FILING DATE: 2002-03-27
; PRIOR APPLICATION NUMBER: PCT/US00/26689
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/157,103
; PRIOR FILING DATE: 1999-10-02
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 18
; LENGTH: 268
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-134-703-18

Query Match 100.0%; Score 268; DB 7; Length 268;
Best Local Similarity 100.0%; Pred. No. 6.1e-246;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPP 240
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RESULT 2
US-11-134-703-12
; Sequence 12, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 12
;   LENGTH: 246
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-12

  Query Match             91.8%;  Score 246;  DB 7;  Length 246;
  Best Local Similarity   100.0%;  Pred. No. 3.7e-225;
  Matches  246;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         23 EKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 82
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 EKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 60

Qy         83 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 142
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 120

Qy        143 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 202
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 180

Qy        203 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYR 262
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYR 240

Qy        263 LKFRFG 268
              ||||||
Db        241 LKFRFG 246


RESULT 3
US-11-134-703-10
; Sequence 10, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 10
;   LENGTH: 246
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-10

  Query Match             72.8%;  Score 195;  DB 7;  Length 246;
  Best Local Similarity   100.0%;  Pred. No. 6.6e-177;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         21 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 80

Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         81 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 140

Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        141 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 200

Qy        223 EQPELSFTVTVPEKK 237
              |||||||||||||||
Db        201 EQPELSFTVTVPEKK 215


RESULT 4
US-11-134-703-4
; Sequence 4, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 4
;   LENGTH: 268
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-4

  Query Match             72.8%;  Score 195;  DB 7;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 7.2e-177;
  Matches  195;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102

Qy        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
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Qy        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222

Qy        223 EQPELSFTVTVPEKK 237
              |||||||||||||||
Db        223 EQPELSFTVTVPEKK 237


RESULT 5
US-11-238-936-9
; Sequence 9, Application US/11238936
; Publication No. US20060025343A1
; GENERAL INFORMATION:
;  APPLICANT: Whitehouse, Martha J.
;  APPLICANT:  Kavanaugh, Michael W.
;  TITLE OF INVENTION: Angiogenically Effective Unit Dose of FGF and Method of
;  TITLE OF INVENTION:  Administering
;  FILE REFERENCE: 1296/12169US05
;  CURRENT APPLICATION NUMBER: US/11/238,936
;  CURRENT FILING DATE:  2005-09-29
;  PRIOR APPLICATION NUMBER: US/09/417,721
;  PRIOR FILING DATE: 1999-10-13
;  PRIOR APPLICATION NUMBER: 60/104,103
;  PRIOR FILING DATE: 1998-10-13
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9
;   LENGTH: 266
;   TYPE: PRT
;   ORGANISM: Human FGF-5
US-11-238-936-9

  Query Match             67.9%;  Score 182;  DB 7;  Length 266;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-164;
  Matches  182;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         87 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 146
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         85 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 144

Qy        147 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 206
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        145 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 204

Qy        207 KPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYRLKFR 266
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        205 KPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYRLKFR 264

Qy        267 FG 268
              ||
Db        265 FG 266


RESULT 6
US-11-134-703-8
; Sequence 8, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 8
;   LENGTH: 176
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-8

  Query Match             65.7%;  Score 176;  DB 7;  Length 176;
  Best Local Similarity   100.0%;  Pred. No. 4.6e-159;
  Matches  176;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         93 CRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHA 152
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHA 60

Qy        153 SAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 212
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 120

Qy        213 THFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 THFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYRLKFRFG 176


RESULT 7
US-11-238-936-15
; Sequence 15, Application US/11238936
; Publication No. US20060025343A1
; GENERAL INFORMATION:
;  APPLICANT: Whitehouse, Martha J.
;  APPLICANT:  Kavanaugh, Michael W.
;  TITLE OF INVENTION: Angiogenically Effective Unit Dose of FGF and Method of
;  TITLE OF INVENTION:  Administering
;  FILE REFERENCE: 1296/12169US05
;  CURRENT APPLICATION NUMBER: US/11/238,936
;  CURRENT FILING DATE:  2005-09-29
;  PRIOR APPLICATION NUMBER: US/09/417,721
;  PRIOR FILING DATE: 1999-10-13
;  PRIOR APPLICATION NUMBER: 60/104,103
;  PRIOR FILING DATE: 1998-10-13
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
;   LENGTH: 266
;   TYPE: PRT
;   ORGANISM: Human FGF-5
US-11-238-936-15

  Query Match             56.3%;  Score 151;  DB 7;  Length 266;
  Best Local Similarity   100.0%;  Pred. No. 3e-135;
  Matches  151;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         87 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 146
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         85 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 144

Qy        147 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 206
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        145 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 204

Qy        207 KPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||
Db        205 KPQHISTHFLPRFKQSEQPELSFTVTVPEKK 235


RESULT 8
US-11-134-703-6
; Sequence 6, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
```

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;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 6
;   LENGTH: 176
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-6

  Query Match             54.1%;  Score 145;  DB 7;  Length 176;
  Best Local Similarity   100.0%;  Pred. No. 9.9e-130;
  Matches  145;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          93 CRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHA 152
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 CRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHA 60

Qy         153 SAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 212
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 SAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 120

Qy         213 THFLPRFKQSEQPELSFTVTVPEKK 237
               |||||||||||||||||||||||||
Db         121 THFLPRFKQSEQPELSFTVTVPEKK 145


RESULT 9
US-11-134-703-19
; Sequence 19, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 19
;   LENGTH: 60
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-134-703-19

  Query Match             22.4%;  Score 60;  DB 7;  Length 60;
  Best Local Similarity   100.0%;  Pred. No. 9.8e-50;
  Matches   60;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         161 KFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 220
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 KFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 60


RESULT 10
US-11-134-703-37
; Sequence 37, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 37
;   LENGTH: 52
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Variant peptide sequence.
US-11-134-703-37

  Query Match             19.4%;  Score 52;  DB 7;  Length 52;
  Best Local Similarity   100.0%;  Pred. No. 3.2e-42;
  Matches   52;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         161 KFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 212
               ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 KFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHIS 52


RESULT 11
US-11-134-703-38
; Sequence 38, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
;  APPLICANT: Hanada et al.
;  TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
;  FILE REFERENCE: 67015-05
;  CURRENT APPLICATION NUMBER: US/11/134,703
;  CURRENT FILING DATE:  2005-05-19
;  PRIOR APPLICATION NUMBER: PCT/US2003/37065
;  PRIOR FILING DATE: 2003-11-19
;  PRIOR APPLICATION NUMBER: US 60/427,920
;  PRIOR FILING DATE: 2002-11-19
;  PRIOR APPLICATION NUMBER: US 10/089,485
;  PRIOR FILING DATE: 2002-03-27
;  PRIOR APPLICATION NUMBER: PCT/US00/26689
;  PRIOR FILING DATE: 2000-09-29
;  PRIOR APPLICATION NUMBER: 60/157,103
;  PRIOR FILING DATE: 1999-10-02
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 38
;   LENGTH: 49
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Variant peptide sequence.
US-11-134-703-38
```

Query Match 18.3%; Score 49; DB 7; Length 49;
Best Local Similarity 100.0%; Pred. No. 2.1e-39;
Matches 49; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        172 NTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 220
              |||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 NTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 49
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RESULT 12
US-11-134-703-36
; Sequence 36, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
; APPLICANT: Hanada et al.
; TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
; FILE REFERENCE: 67015-05
; CURRENT APPLICATION NUMBER: US/11/134,703
; CURRENT FILING DATE: 2005-05-19
; PRIOR APPLICATION NUMBER: PCT/US2003/37065
; PRIOR FILING DATE: 2003-11-19
; PRIOR APPLICATION NUMBER: US 60/427,920
; PRIOR FILING DATE: 2002-11-19
; PRIOR APPLICATION NUMBER: US 10/089,485
; PRIOR FILING DATE: 2002-03-27
; PRIOR APPLICATION NUMBER: PCT/US00/26689
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/157,103
; PRIOR FILING DATE: 1999-10-02
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 36
; LENGTH: 48
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Variant peptide sequence.
US-11-134-703-36

Query Match 17.9%; Score 48; DB 7; Length 48;
Best Local Similarity 100.0%; Pred. No. 1.8e-38;
Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy        173 TYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 220
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 TYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFK 48
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RESULT 13
US-11-134-703-32
; Sequence 32, Application US/11134703
; Publication No. US20060009393A1
; GENERAL INFORMATION:
; APPLICANT: Hanada et al.
; TITLE OF INVENTION: IMMUNOGENIC EPITOPES FOR FIBROBLAST GROWTH FACTOR 5 (FGF-5)
; FILE REFERENCE: 67015-05
; CURRENT APPLICATION NUMBER: US/11/134,703
; CURRENT FILING DATE: 2005-05-19
; PRIOR APPLICATION NUMBER: PCT/US2003/37065
; PRIOR FILING DATE: 2003-11-19
; PRIOR APPLICATION NUMBER: US 60/427,920
; PRIOR FILING DATE: 2002-11-19
; PRIOR APPLICATION NUMBER: US 10/089,485
; PRIOR FILING DATE: 2002-03-27
; PRIOR APPLICATION NUMBER: PCT/US00/26689
; PRIOR FILING DATE: 2000-09-29
; PRIOR APPLICATION NUMBER: 60/157,103
; PRIOR FILING DATE: 1999-10-02
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 32
; LENGTH: 10
; TYPE: PRT
; ORGANISM: homo sapiens
US-11-134-703-32

Query Match 3.7%; Score 10; DB 7; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0039;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        117 MLSVLEIFAV 126
              ||||||||||
Db          1 MLSVLEIFAV 10
```

RESULT 14
US-11-087-099-8568
; Sequence 8568, Application US/11087099
; Publication No. US20060041961A1
; GENERAL INFORMATION:
; APPLICANT: Abad, Mark S. et al.
; TITLE OF INVENTION: Genes and Uses for Plant Improvement
; FILE REFERENCE: 38-21(53450)B EP
; CURRENT APPLICATION NUMBER: US/11/087,099
; CURRENT FILING DATE: 2005-03-22
; NUMBER OF SEQ ID NOS: 12464
; SEQ ID NO 8568
; LENGTH: 188
; TYPE: PRT
; ORGANISM: Sorghum bicolor
US-11-087-099-8568

Query Match 3.4%; Score 9; DB 7; Length 188;
Best Local Similarity 100.0%; Pred. No. 0.49;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy         58 SASSSPAAS 66
              |||||||||
Db        114 SASSSPAAS 122
```

RESULT 15
US-11-096-568A-20771
; Sequence 20771, Application US/11096568A
; Publication No. US20060048240A1
; GENERAL INFORMATION:
; APPLICANT: Alexandrov, Nickolai et al.
; TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
; TITLE OF INVENTION: Therby
; FILE REFERENCE: 2750-1592PUS2
; CURRENT APPLICATION NUMBER: US/11/096,568A
; CURRENT FILING DATE: 2005-04-01
; NUMBER OF SEQ ID NOS: 34471
; SEQ ID NO 20771
; LENGTH: 413
; TYPE: PRT
; ORGANISM: Zea mays subsp. mays
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(413)
; OTHER INFORMATION: Ceres Seq. ID no. 12387083
US-11-096-568A-20771

Query Match 3.4%; Score 9; DB 7; Length 413;
Best Local Similarity 100.0%; Pred. No. 1;
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy         55 SSSSASSSP 63
              |||||||||
Db        243 SSSSASSSP 251
```

Search completed: April 11, 2006, 03:46:10
Job time : 10.5 secs

GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:36:56 ; Search time 13 Seconds
(without alignments)
1983.546 Million cell updates/sec

Title: US-10-089-485-18
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 283416 seqs, 96216763 residues

Word size : 1

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : PIR_80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 151 | 56.3 | 267 | 1 | TVHUF5 | fibroblast growth |
| 2 | 90 | 33.6 | 264 | 2 | A36207 | fibroblast growth |
| 3 | 90 | 33.6 | 266 | 2 | S68144 | fibroblast growth |
| 4 | 39 | 14.6 | 121 | 2 | S68145 | fibroblast growth |
| 5 | 10 | 3.7 | 109 | 2 | S69307 | probable membrane |
| 6 | 9 | 3.4 | 143 | 2 | T22906 | hypothetical prote |
| 7 | 9 | 3.4 | 979 | 2 | T01566 | hypothetical prote |
| 8 | 8 | 3.0 | 153 | 2 | S67294 | hypothetical prote |
| 9 | 8 | 3.0 | 202 | 1 | TVMSHS | fibroblast growth |
| 10 | 8 | 3.0 | 206 | 1 | TVHUHS | fibroblast growth |
| 11 | 8 | 3.0 | 206 | 2 | JC4268 | fibroblast growth |
| 12 | 8 | 3.0 | 208 | 2 | S20102 | fibroblast growth |
| 13 | 8 | 3.0 | 208 | 2 | S14192 | fibroblast growth |
| 14 | 8 | 3.0 | 225 | 2 | B84653 | TINY-like AP2 doma |
| 15 | 8 | 3.0 | 229 | 2 | JC7219 | nuclear protein SR |
| 16 | 8 | 3.0 | 238 | 2 | S77699 | inner cell wall ma |
| 17 | 8 | 3.0 | 238 | 2 | D84585 | hypothetical prote |
| 18 | 8 | 3.0 | 262 | 2 | T40941 | hypothetical serin |
| 19 | 8 | 3.0 | 264 | 2 | D96694 | hypothetical prote |
| 20 | 8 | 3.0 | 268 | 2 | C84585 | hypothetical prote |
| 21 | 8 | 3.0 | 270 | 2 | F86170 | GBF4 [imported] - |
| 22 | 8 | 3.0 | 299 | 2 | T52452 | ATP-dependent Clp |
| 23 | 8 | 3.0 | 325 | 2 | H96815 | hypothetical prote |
| 24 | 8 | 3.0 | 354 | 2 | S39406 | homeotic protein o |
| 25 | 8 | 3.0 | 391 | 2 | S61704 | probable transcrip |
| 26 | 8 | 3.0 | 396 | 2 | T26987 | hypothetical prote |
| 27 | 8 | 3.0 | 412 | 2 | S30299 | Krox-20 protein - |
| 28 | 8 | 3.0 | 419 | 2 | T49292 | hypothetical prote |
| 29 | 8 | 3.0 | 429 | 2 | A47305 | translation initia |
| 30 | 8 | 3.0 | 431 | 2 | T12450 | hypothetical prote |
| 31 | 8 | 3.0 | 459 | 2 | A88712 | protein C17H12.9 [ |
| 32 | 8 | 3.0 | 472 | 2 | T04699 | hypothetical prote |
| 33 | 8 | 3.0 | 484 | 2 | S66713 | hypothetical prote |
| 34 | 8 | 3.0 | 490 | 2 | A32140 | steroid 15beta-mon |
| 35 | 8 | 3.0 | 559 | 1 | RWBYS1 | glycophospholipid- |
| 36 | 8 | 3.0 | 600 | 2 | S07638 | spore coat protein |
| 37 | 8 | 3.0 | 640 | 1 | QQBEU2 | UL35 protein - hum |
| 38 | 8 | 3.0 | 640 | 2 | S62747 | homeotic protein A |
| 39 | 8 | 3.0 | 661 | 2 | T16597 | hypothetical prote |
| 40 | 8 | 3.0 | 717 | 2 | T25431 | hypothetical prote |
| 41 | 8 | 3.0 | 741 | 2 | I48694 | probable transcrip |
| 42 | 8 | 3.0 | 742 | 2 | A49672 | transcription fact |
| 43 | 8 | 3.0 | 772 | 2 | A55004 | transcription fact |
| 44 | 8 | 3.0 | 775 | 1 | EDBE11 | immediate-early pr |
| 45 | 8 | 3.0 | 825 | 1 | EDBEXD | immediate-early pr |

ALIGNMENTS

RESULT 1
TVHUF5
fibroblast growth factor 5 - human
N;Alternate names: transforming protein FGF5
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_change 09-Jul-2004
C;Accession: A31194
R;Zhan, X.; Bates, B.; Hu, X.; Goldfarb, M.
Mol. Cell. Biol. 8, 3487-3495, 1988
A;Title: The human FGF-5 oncogene encodes a novel protein related to fibroblast growth f
A;Reference number: A31194; MUID:89096942; PMID:3211147
A;Accession: A31194
A;Molecule type: mRNA
A;Residues: 1-267 <ZHA>
A;Cross-references: UNIPROT:P12034; UNIPARC:UPI00000462BB; GB:M23536; GB:M21617; NID:g18
C;Genetics:
A;Gene: GDB:FGF5
A;Cross-references: GDB:119907; OMIM:165190
A;Map position: 4q21-4q21
C;Superfamily: fibroblast growth factor
C;Keywords: growth factor; transforming protein

Query Match 56.3%; Score 151; DB 1; Length 267;
Best Local Similarity 100.0%; Pred. No. 5.3e-139;
Matches 151; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         87 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 146
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         86 RTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSK 145

Qy        147 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 206
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        146 KGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRV 205

Qy        207 KPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
               |||||||||||||||||||||||||||||||
Db        206 KPQHISTHFLPRFKQSEQPELSFTVTVPEKK 236
```

RESULT 2
A36207
fibroblast growth factor 5 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 28-Mar-1991 #sequence_revision 28-Mar-1991 #text_change 09-Jul-2004
C;Accession: A36207; B37360
R;Haub, O.; Drucker, B.; Goldfarb, M.
Proc. Natl. Acad. Sci. U.S.A. 87, 8022-8026, 1990
A;Title: Expression of the murine fibroblast growth factor 5 gene in the adult central n
A;Reference number: A36207; MUID:91045929; PMID:1700424
A;Accession: A36207
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: DNA

```
A;Residues: 1-264 <HAU>
A;Cross-references: UNIPROT:P15656; UNIPARC:UPI0000003F7B; GB:M37821; GB:M37822; GB:M378
R;Hebert, J.M.; Basilico, C.; Goldfarb, M.; Haub, O.; Martin, G.R.
Dev. Biol. 138, 454-463, 1990
A;Title: Isolation of cDNAs encoding four mouse FGF family members and characterization
A;Reference number: A37360; MUID:90201563; PMID:2318343
A;Accession: B37360
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-264 <HEB>
A;Cross-references: UNIPARC:UPI0000003F7B; GB:M30643; NID:g193294; PIDN:AAA96698.1; PID:
C;Superfamily: fibroblast growth factor

  Query Match             33.6%;  Score 90;  DB 2;  Length 264;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-79;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 178

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 210
              ||||||||||||||||||||||||||||||
Db        179 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 208


RESULT 3
S68144
fibroblast growth factor 5 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S68144
R;Hattori, Y.; Yamasaki, M.; Itoh, N.
Biochim. Biophys. Acta 1306, 31-33, 1996
A;Title: The rat FGF-5 mRNA variant generated by alternative splicing encodes a novel tr
A;Reference number: S68144; MUID:96201703; PMID:8611621
A;Accession: S68144
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-266 <HAT>
A;Cross-references: UNIPROT:P48807; UNIPARC:UPI000012A716; EMBL:D64085; NID:g992952; PID
C;Superfamily: fibroblast growth factor

  Query Match             33.6%;  Score 90;  DB 2;  Length 266;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-79;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 178

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 210
              ||||||||||||||||||||||||||||||
Db        179 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 208


RESULT 4
S68145
fibroblast growth factor 5, truncated splice form - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S68145
R;Hattori, Y.; Yamasaki, M.; Itoh, N.
Biochim. Biophys. Acta 1306, 31-33, 1996
A;Title: The rat FGF-5 mRNA variant generated by alternative splicing encodes a novel tr
A;Reference number: S68144; MUID:96201703; PMID:8611621
A;Accession: S68145
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-121 <HAT>
A;Cross-references: UNIPROT:P48807; UNIPARC:UPI000002A98F; EMBL:D64086; NID:g987689; PID
C;Keywords: alternative splicing

  Query Match             14.6%;  Score 39;  DB 2;  Length 121;
  Best Local Similarity   100.0%;  Pred. No. 3e-30;
  Matches   39;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         77 SSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEA 115
              |||||||||||||||||||||||||||||||||||||||
Db         75 SSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEA 113


RESULT 5
S69307
probable membrane protein YLR294c - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein L8003.19-a
C;Species: Saccharomyces cerevisiae
C;Date: 20-Jul-1996 #sequence_revision 23-Aug-1996 #text_change 09-Jul-2004
C;Accession: S69307
R;Pauley, A.
submitted to the EMBL Data Library, November 1994
A;Description: The sequence of S. cerevisiae cosmid 8003.
A;Reference number: S50366
A;Accession: S69307
A;Molecule type: DNA
A;Residues: 1-109 <PAU>
A;Cross-references: UNIPROT:O13543; UNIPARC:UPI000004F949; EMBL:U17243; NID:g596030; PII
C;Genetics:
A;Gene: MIPS:YLR294c
A;Cross-references: SGD:S0004285
A;Map position: 12R
C;Superfamily: Saccharomyces probable membrane protein YLR294c
C;Keywords: transmembrane protein
F;77-93/Domain: transmembrane #status predicted <TMM>

  Query Match              3.7%;  Score 10;  DB 2;  Length 109;
  Best Local Similarity   100.0%;  Pred. No. 0.047;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 SLSFLLLLFF 11
              ||||||||||
Db         82 SLSFLLLLFF 91


RESULT 6
T22906
hypothetical protein F58D12.1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T22906
R;Percy, C.
submitted to the EMBL Data Library, October 1996
A;Reference number: Z19635
A;Accession: T22906
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-143 <WIL>
A;Cross-references: UNIPROT:O02276; UNIPARC:UPI00000753E8; EMBL:Z81092; PIDN:CAB03144.1;
A;Experimental source: clone F58D12
C;Genetics:
A;Gene: CESP:F58D12.1
A;Map position: 5
A;Introns: 14/1; 38/2; 75/1; 90/3

  Query Match              3.4%;  Score 9;  DB 2;  Length 143;
  Best Local Similarity   100.0%;  Pred. No. 0.55;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         56 SSSASSSPA 64
              |||||||||
Db         53 SSSASSSPA 61


RESULT 7
T01566
hypothetical protein A_TM018A10.23 - Arabidopsis thaliana
```

```
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 19-Feb-1999 #sequence_revision 19-Feb-1999 #text_change 09-Jul-2004
C;Accession: T01566
R;Dempsey, S.; Harper, M.
submitted to the EMBL Data Library, July 1997
A;Description: The sequence of A. thaliana TM018A10.
A;Reference number: Z14348
A;Accession: T01566
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-979 <DEM>
A;Cross-references: UNIPROT:O23096; UNIPARC:UPI000009EB61; EMBL:AF013294; NID:g2252848;
A;Experimental source: cultivar Columbia
C;Genetics:
A;Map position: 4
A;Introns: 466/3; 569/3; 649/3; 688/1; 740/3; 877/3
A;Note: A_TM018A10.23
C;Superfamily: Arabidopsis thaliana hypothetical protein A_TM018A10.23

  Query Match             3.4%;  Score 9;  DB 2;  Length 979;
  Best Local Similarity   100.0%;  Pred. No. 2.7;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSSP 63
              |||||||||
Db         37 SSSSASSSP 45


RESULT 8
S67294
hypothetical protein YOR382w - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein O6760
C;Species: Saccharomyces cerevisiae
C;Date: 12-Jul-1996 #sequence_revision 12-Jul-1996 #text_change 09-Jul-2004
C;Accession: S67294
R;Delius, H.; Hebling, U.; Hofmann, B.
submitted to the Protein Sequence Database, July 1996
A;Reference number: S67261
A;Accession: S67294
A;Molecule type: DNA
A;Residues: 1-153 <DEL>
A;Cross-references: UNIPROT:Q08906; UNIPARC:UPI000004F973; EMBL:Z75290; NID:g1420822; PI
A;Experimental source: strain S288C
C;Genetics:
A;Gene: SGD:FIT2; MIPS:YOR382w
A;Cross-references: SGD:S0005909
A;Map position: 15R

  Query Match             3.0%;  Score 8;  DB 2;  Length 153;
  Best Local Similarity   100.0%;  Pred. No. 5.5;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSS 62
              ||||||||
Db        122 SSSSASSS 129


RESULT 9
TVMSHS
fibroblast growth factor 4 - mouse
N;Alternate names: transforming protein hstf1; transforming protein k-FGF; transforming
C;Species: Mus musculus (house mouse)
C;Date: 31-Mar-1991 #sequence_revision 31-Mar-1991 #text_change 09-Jul-2004
C;Accession: S04741; A37360
R;Brookes, S.; Smith, R.; Thurlow, J.; Dickson, C.; Peters, G.
Nucleic Acids Res. 17, 4037-4045, 1989
A;Title: The mouse homologue of hst/k-FGF: sequence, genome organization and location re
A;Reference number: S04741; MUID:89296455; PMID:2740210
A;Accession: S04741
A;Molecule type: DNA
A;Residues: 1-202 <BRO>
A;Cross-references: UNIPROT:P11403; UNIPARC:UPI0000027966; GB:X14849; GB:M28516; NID:g52
R;Hebert, J.M.; Basilico, C.; Goldfarb, M.; Haub, O.; Martin, G.R.
Dev. Biol. 138, 454-463, 1990
A;Title: Isolation of cDNAs encoding four mouse FGF family members and characterization
A;Reference number: A37360; MUID:90201563; PMID:2318343
A;Accession: A37360
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-166,'S',168-202 <HEB>
A;Cross-references: UNIPARC:UPI000000415D; GB:M30642; NID:g193290; PIDN:AAA37619.1; PID:
C;Genetics:
A;Gene: hst
C;Superfamily: fibroblast growth factor
C;Keywords: growth factor; transforming protein

  Query Match             3.0%;  Score 8;  DB 1;  Length 202;
  Best Local Similarity   100.0%;  Pred. No. 6.9;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 VGIGFHLQ 102
              ||||||||
Db         86 VGIGFHLQ 93


RESULT 10
TVHUHS
fibroblast growth factor 4 - human
N;Alternate names: heparin secretory transforming protein 1; Kaposi sarcoma oncogene; tr
C;Species: Homo sapiens (man)
C;Date: 31-Mar-1989 #sequence_revision 31-Mar-1989 #text_change 09-Jul-2004
C;Accession: A28417; A29876; A29649
R;Yoshida, T.; Miyagawa, K.; Odagiri, H.; Sakamoto, H.; Little, P.F.R.; Terada, M.; Sugi
Proc. Natl. Acad. Sci. U.S.A. 84, 7305-7309, 1987
A;Title: Genomic sequence of hst, a transforming gene encoding a protein homologous to f
A;Reference number: A28417; MUID:88041096; PMID:2959959
A;Accession: A28417
A;Molecule type: DNA
A;Residues: 1-206 <YOS>
A;Cross-references: UNIPROT:P08620; UNIPARC:UPI0000040662; DDBJ:J02986; NID:g184430; PID
R;Taira, M.; Yoshida, T.; Miyagawa, K.; Sakamoto, H.; Terada, M.; Sugimura, T.
Proc. Natl. Acad. Sci. U.S.A. 84, 2980-2984, 1987
A;Title: cDNA sequence of human transforming gene hst and identification of the coding s
A;Reference number: A29876; MUID:87204251; PMID:2953031
A;Accession: A29876
A;Molecule type: mRNA
A;Residues: 1-206 <TAI>
A;Cross-references: UNIPARC:UPI0000040662; GB:J02986; GB:M16338; NID:g184430; PIDN:AAB59
R;Delli Bovi, P.; Curatola, A.M.; Kern, F.G.; Greco, A.; Ittmann, M.; Basilico, C.
Cell 50, 729-737, 1987
A;Title: An oncogene isolated by transfection of Kaposi's sarcoma DNA encodes a growth f
A;Reference number: A29649; MUID:87301716; PMID:2957062
A;Accession: A29649
A;Molecule type: mRNA
A;Residues: 1-206 <BOV>
A;Cross-references: UNIPARC:UPI0000040662; GB:M17446; NID:g186785; PIDN:AAA59473.1; PID:
C;Comment: This protein is an oncogene for Kaposi's sarcoma. It is homologous to the mou
C;Genetics:
A;Gene: GDB:FGF4; HSTF1
A;Cross-references: GDB:120066; OMIM:164980
A;Map position: 11q13.3-11q13.3
A;Introns: 114/1; 148/3
C;Superfamily: fibroblast growth factor
C;Keywords: growth factor; Kaposi sarcoma; transforming protein

  Query Match             3.0%;  Score 8;  DB 1;  Length 206;
  Best Local Similarity   100.0%;  Pred. No. 7;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 VGIGFHLQ 102
              ||||||||
Db         90 VGIGFHLQ 97


RESULT 11
JC4268
```

```
fibroblast growth factor 4 - bovine
N;Alternate names: transforming protein hst
C;Species: Bos primigenius taurus (cattle)
C;Date: 10-Nov-1995 #sequence_revision 08-Feb-1996 #text_change 17-Mar-2000
C;Accession: JC4268
R;Yu, J.C.; DeSeabra, A.J.J.; Wang, L.M.; Fleming, T.P.; Chedid, M.; Miki, T.; Heidaran,
Gene 162, 333-334, 1995
A;Title: An unexpected transforming gene in calf-thymus carrier DNA: Bovine hst.
A;Reference number: JC4268; MUID:96032369; PMID:7557455
A;Accession: JC4268
A;Molecule type: mRNA
A;Residues: 1-206 <YUJ>
A;Cross-references: UNIPARC:UPI0000176539; GB:U15969
A;Note: The authors translated the codon GGC for residue 114 as Ser
C;Comment: This protein is a member of fibroblast growth factor family. The hstgene in c
C;Genetics:
A;Gene: hst
A;Introns: 113/3; 145/2
C;Superfamily: fibroblast growth factor
C;Keywords: thymus; transforming protein

  Query Match             3.0%;  Score 8;  DB 2;  Length 206;
  Best Local Similarity   100.0%;  Pred. No. 7;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 VGIGFHLQ 102
              ||||||||
Db         90 VGIGFHLQ 97


RESULT 12
S20102
fibroblast growth factor 6 precursor - human
N;Alternate names: fibroblast growth factor-related protein FGF.6; transforming protein
C;Species: Homo sapiens (man)
C;Date: 18-Feb-1994 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004
C;Accession: S20102; S23739; S04204; S36910
R;Coulier, F.; Batoz, M.; Marics, I.; de Lapeyriere, O.; Birnbaum, D.
Oncogene 6, 1437-1444, 1991
A;Title: Putative structure of the FGF6 gene product and role of the signal peptide.
A;Reference number: S20102; MUID:91360279; PMID:1886714
A;Accession: S20102
A;Status: not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-208 <COU>
A;Cross-references: UNIPROT:P10767; UNIPARC:UPI00000411BF; EMBL:X57075
A;Note: it is uncertain whether Met-1, Met-11 or Met-34 is the initiator
R;Iida, S.; Yoshida, T.; Naito, K.; Sakamoto, H.; Katoh, O.; Hirohashi, S.; Sato, T.; On
Oncogene 7, 303-309, 1992
A;Title: Human hst-2 (FGF-6) oncogene: cDNA cloning and characterization.
A;Reference number: S23739; MUID:92195660; PMID:1549352
A;Accession: S23739
A;Molecule type: mRNA
A;Residues: 1-208 <IID>
A;Cross-references: UNIPARC:UPI00000411BF; EMBL:X63454
A;Note: it is uncertain whether Met-1 or Met-11 is the initiator
R;Marics, I.; Adelaide, J.; Raybaud, F.; Mattei, M.G.; Coulier, F.; Planche, J.; de Lape
Oncogene 4, 335-340, 1989
A;Title: Characterization of the HST-related FGF.6 gene, a new member of the fibroblast
A;Reference number: S04204; MUID:89201880; PMID:2649847
A;Accession: S04204
A;Molecule type: DNA
A;Residues: 81-99,'G',101-208 <MAR>
A;Cross-references: UNIPARC:UPI000016A8F6; EMBL:X14071; NID:g31354; PIDN:CAB37648.2; PID
C;Genetics:
A;Gene: GDB:FGF6; hst-2
A;Cross-references: GDB:119908; OMIM:134921
A;Map position: 12p13-12p13
A;Introns: 115/3; 150/2
C;Superfamily: fibroblast growth factor
F;1-40/Domain: (or 11-40 or 34-40) signal sequence #status predicted <SIG>
F;41-208/Product: fibroblast growth factor 6 #status predicted <MAT>

  Query Match             3.0%;  Score 8;  DB 2;  Length 208;
  Best Local Similarity   100.0%;  Pred. No. 7.1;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 VGIGFHLQ 102
              ||||||||
Db         92 VGIGFHLQ 99


RESULT 13
S14192
fibroblast growth factor 6 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 21-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C;Accession: S14192; I49665; I49664
R;de Lapeyriere, O.; Rosnet, O.; Benharroch, D.; Raybaud, F.; Marchetto, S.; Planche, J.
Oncogene 5, 823-831, 1990
A;Title: Structure, chromosome mapping and expression of the murine Fgf-6 gene.
A;Reference number: S14192; MUID:90295275; PMID:2193291
A;Accession: S14192
A;Molecule type: DNA
A;Residues: 1-208 <LAP>
A;Cross-references: UNIPROT:P21658; UNIPARC:UPI0000020A67; EMBL:X51552
A;Note: it is uncertain whether Met-1 or Met-11 is the initiator
R;Ollendorff, V.; Rosnet, O.; Marics, I.; Birnbaum, D.; deLapeyriere, O.
Biochimie 74, 1035-1038, 1992
A;Title: Isolation and sequence of the murine Fgf6 cDNA.
A;Reference number: I49664; MUID:93120244; PMID:1477139
A;Accession: I49665
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 19-208 <RES>
A;Cross-references: UNIPARC:UPI000016CD51; GB:M92416; NID:g193288; PIDN:AAA62261.1; PID:
A;Accession: I49664
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-18 <RE2>
A;Cross-references: UNIPARC:UPI000016CD50; GB:M92415; NID:g193286; PIDN:AAA62260.1; PID:
C;Genetics:
A;Gene: Fgf6
A;Introns: 116/1; 150/3
C;Superfamily: fibroblast growth factor

  Query Match             3.0%;  Score 8;  DB 2;  Length 208;
  Best Local Similarity   100.0%;  Pred. No. 7.1;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 VGIGFHLQ 102
              ||||||||
Db         92 VGIGFHLQ 99


RESULT 14
B84653
TINY-like AP2 domain transcription factor [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004
C;Accession: B84653
R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.;
M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, L.
euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, J
Nature 402, 761-768, 1999
A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
A;Reference number: A84420; MUID:20083487; PMID:10617197
A;Accession: B84653
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-225 <STO>
A;Cross-references: UNIPROT:O82315; UNIPARC:UPI0000179899; GB:AE002093; NID:g3643601; PI
C;Genetics:
A;Gene: At2g25820
A;Map position: 2
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  Query Match             3.0%;  Score 8;  DB 2;  Length 225;
  Best Local Similarity   100.0%;  Pred. No. 7.6;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSS 62
              ||||||||
Db        140 SSSSASSS 147


RESULT 15
JC7219
nuclear protein SR-25 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 09-Jun-2000 #sequence_revision 09-Jun-2000 #text_change 09-Jul-2004
C;Accession: JC7219
R;Sasahara, K.; Yamaoka, T.; Moritani, M.; Tanaka, M.; Iwahana, H.; Yoshimoto, K.; Miyag
Biochem. Biophys. Res. Commun. 269, 444-450, 2000
A;Title: Molecular cloning and expression analysis of a putative nuclear protein, SR-25.
A;Reference number: JC7219; MUID:20175222; PMID:10708573
A;Accession: JC7219
A;Molecule type: mRNA
A;Residues: 1-229 <SAS>
A;Cross-references: UNIPROT:Q9JM93; UNIPARC:UPI00000231C4; DDBJ:AB035383; NID:g7619895;
A;Experimental source: MIN6 cell line
C;Comment: This protein is a highly hydrophilic nuclear protein with a serine-arginine r
A splicing factors.
C;Keywords: nucleus; RNA processing

  Query Match             3.0%;  Score 8;  DB 2;  Length 229;
  Best Local Similarity   100.0%;  Pred. No. 7.7;
  Matches    8;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSS 62
              ||||||||
Db         77 SSSSASSS 84


Search completed: April 11, 2006, 03:38:26
Job time : 13 secs
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GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:33:26 ; Search time 73 Seconds
(without alignments)
2590.159 Million cell updates/sec

Title: US-10-089-485-18
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 2166443 seqs, 705528306 residues

Word size : 1

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 268 | 100.0 | 268 | 2 | Q8NF90_HUMAN | Q8nf90 homo sapien |
| 2 | 237 | 88.4 | 268 | 1 | FGF5_HUMAN | P12034 homo sapien |
| 3 | 125 | 46.6 | 125 | 2 | Q8NBG6_HUMAN | Q8nbg6 homo sapien |
| 4 | 119 | 44.4 | 129 | 2 | Q6A549_HUMAN | Q6a549 homo sapien |
| 5 | 90 | 33.6 | 264 | 1 | FGF5_MOUSE | P15656 mus musculu |
| 6 | 90 | 33.6 | 266 | 1 | FGF5_RAT | P48807 rattus norv |
| 7 | 60 | 22.4 | 153 | 2 | Q8SQ73_CANFA | Q8sq73 canis famil |
| 8 | 30 | 11.2 | 99 | 2 | Q6XK01_RABIT | Q6xk01 oryctolagus |
| 9 | 29 | 10.8 | 79 | 2 | Q6XK00_RABIT | Q6xk00 oryctolagus |
| 10 | 21 | 7.8 | 225 | 2 | Q5TLE2_BRARE | Q5tle2 brachydanio |
| 11 | 19 | 7.1 | 230 | 2 | Q4RPQ6_TETNG | Q4rpq6 tetraodon n |
| 12 | 16 | 6.0 | 87 | 2 | Q8WN07_CANFA | Q8wn07 canis famil |
| 13 | 10 | 3.7 | 109 | 2 | O13543_YEAST | O13543 saccharomyc |
| 14 | 10 | 3.7 | 349 | 2 | Q7Y0C1_ORYSA | Q7y0c1 oryza sativ |
| 15 | 10 | 3.7 | 418 | 2 | Q54TY7_DICDI | Q54ty7 dictyosteli |
| 16 | 10 | 3.7 | 420 | 2 | O76853_DICDI | O76853 dictyosteli |
| 17 | 10 | 3.7 | 702 | 2 | Q9V356_DROME | Q9v356 drosophila |
| 18 | 10 | 3.7 | 706 | 2 | Q8SZH3_DROME | Q8szh3 drosophila |
| 19 | 10 | 3.7 | 706 | 2 | Q86BR3_DROME | Q86br3 drosophila |
| 20 | 9 | 3.4 | 140 | 2 | Q851P2_ORYSA | Q851p2 oryza sativ |
| 21 | 9 | 3.4 | 143 | 2 | O02276_CAEEL | O02276 caenorhabdi |
| 22 | 9 | 3.4 | 168 | 2 | Q9JI73_MOUSE | Q9ji73 mus musculu |
| 23 | 9 | 3.4 | 180 | 2 | Q4T440_TETNG | Q4t440 tetraodon n |
| 24 | 9 | 3.4 | 181 | 2 | Q4TEY6_TETNG | Q4tey6 tetraodon n |
| 25 | 9 | 3.4 | 188 | 2 | Q8S444_SORBI | Q8s444 sorghum bic |
| 26 | 9 | 3.4 | 209 | 2 | Q5MFQ8_DICLA | Q5mfq8 dicentrarch |
| 27 | 9 | 3.4 | 233 | 2 | Q6DCP9_XENLA | Q6dcp9 xenopus lae |
| 28 | 9 | 3.4 | 284 | 2 | Q71SY8_CHICK | Q71sy8 gallus gall |
| 29 | 9 | 3.4 | 295 | 1 | U9166_HUMAN | Q6uwi4 homo sapien |
| 30 | 9 | 3.4 | 295 | 1 | U9166_MOUSE | Q8qzv2 mus musculu |
| 31 | 9 | 3.4 | 295 | 2 | Q5W0G8_HUMAN | Q5w0g8 homo sapien |
| 32 | 9 | 3.4 | 482 | 2 | Q7S0U9_NEUCR | Q7s0u9 neurospora |
| 33 | 9 | 3.4 | 492 | 2 | Q4QBT7_LEIMA | Q4qbt7 leishmania |
| 34 | 9 | 3.4 | 492 | 2 | Q8BSD5_MOUSE | Q8bsd5 mus musculu |
| 35 | 9 | 3.4 | 495 | 2 | Q5VZ18_HUMAN | Q5vz18 homo sapien |
| 36 | 9 | 3.4 | 526 | 2 | Q9ZRH9_ORYSA | Q9zrh9 oryza sativ |
| 37 | 9 | 3.4 | 540 | 2 | Q650Z7_ORYSA | Q650z7 oryza sativ |
| 38 | 9 | 3.4 | 553 | 2 | Q7TML6_MOUSE | Q7tml6 mus musculu |
| 39 | 9 | 3.4 | 565 | 2 | Q6Z9D7_ORYSA | Q6z9d7 oryza sativ |
| 40 | 9 | 3.4 | 648 | 2 | Q6ZEY3_ORYSA | Q6zey3 oryza sativ |
| 41 | 9 | 3.4 | 712 | 2 | Q6FWG1_CANGA | Q6fwg1 candida gla |
| 42 | 9 | 3.4 | 719 | 2 | Q6DJ90_XENTR | Q6dj90 xenopus tro |
| 43 | 9 | 3.4 | 745 | 2 | Q86NY8_DROME | Q86ny8 drosophila |
| 44 | 9 | 3.4 | 749 | 2 | Q8DAV3_VIBVU | Q8dav3 vibrio vuln |
| 45 | 9 | 3.4 | 749 | 2 | Q7MJ05_VIBVY | Q7mj05 vibrio vuln |

ALIGNMENTS

RESULT 1
Q8NF90_HUMAN
ID Q8NF90_HUMAN PRELIMINARY; PRT; 268 AA.
AC Q8NF90;
DT 01-OCT-2002 (TrEMBLrel. 22, Created)
DT 01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT 10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE Fibroblast growth factor 5, isoform 1.
GN Name=FGF5;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=21347229; PubMed=11454700;
RA Hanada K.-I., Perry-Lalley D.M., Ohnmacht G.A., Bettinotti M.P.,
RA Yang J.C.;
RT "Identification of fibroblast growth factor-5 as an overexpressed
RT antigen in multiple human adenocarcinomas.";
RL Cancer Res. 61:5511-5516(2001).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RA Hanada K.-I., Yang J.C.;
RL Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [4]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Lung;
RA Director MGC Project;

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RL   Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF535149; AAN04097.1; -; mRNA.
DR   EMBL; BC074858; AAH74858.1; -; mRNA.
DR   EMBL; BC074859; AAH74859.1; -; mRNA.
DR   HSSP; P08620; 1IJT.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002209; HB/F_growthfact.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; UNKNOWN_1.
KW   Growth factor.
SQ   SEQUENCE   268 AA;  29551 MW;  28B7268B26781BCF CRC64;

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 5e-253;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPP 240

Qy        241 SPIKPKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKPKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 2
FGF5_HUMAN
ID   FGF5_HUMAN     STANDARD;      PRT;   268 AA.
AC   P12034; O75846;
DT   01-OCT-1989 (Rel. 12, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Fibroblast growth factor 5 precursor (FGF-5) (HBGF-5) (Smag-82).
GN   Name=FGF5;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE (ISOFORM LONG).
RC   TISSUE=Brain stem;
RX   MEDLINE=91045929; PubMed=1700424;
RA   Haub O., Drucker B., Goldfarb M.;
RT   "Expression of the murine fibroblast growth factor 5 gene in the adult
RT   central nervous system.";
RL   Proc. Natl. Acad. Sci. U.S.A. 87:8022-8026(1990).
RN   [2]
RP   NUCLEOTIDE SEQUENCE (ISOFORM LONG).
RX   MEDLINE=89096942; PubMed=3211147;
RA   Zhan X., Bates B., Hu X., Goldfarb M.;
RT   "The human FGF-5 oncogene encodes a novel protein related to
RT   fibroblast growth factors.";
RL   Mol. Cell. Biol. 8:3487-3495(1988).
RN   [3]
RP   NUCLEOTIDE SEQUENCE (ISOFORM SHORT).
RA   Ozawa K., Suzuki S., Asada M., Tomooka Y., Li A., Yoneda A., Komi A.,
RA   Imamura T.;
RT   "An alternatively-spliced FGF-5 mRNA is abundant in brain and
RT   translates into a partial agonist/antagonist for FGF-5 neurotrophic
RT   activity.";
RL   Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   NUCLEOTIDE SEQUENCE (ISOFORM SHORT).
RC   TISSUE=Umbilical artery;
RX   MEDLINE=20379035; PubMed=10823842; DOI=10.1074/jbc.M910099199;
RA   de Vries C.J.M., van Achterberg T.A.E., Horrevoets A.J.G.,
RA   ten Cate J.W., Pannekoek H.;
RT   "Differential display identification of 40 genes with altered
RT   expression in activated human smooth muscle cells. Local expression in
RT   atherosclerotic lesions of smags, smooth muscle activation-specific
RT   genes.";
RL   J. Biol. Chem. 275:23939-23947(2000).
CC   -!- FUNCTION: This oncogene is expressed in neonatal brain. FGF-5 can
CC       transform NIH 3T3 cells.
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Long;
CC         IsoId=P12034-1; Sequence=Displayed;
CC       Name=Short; Synonyms=FGF-5S;
CC         IsoId=P12034-2; Sequence=VSP_001518, VSP_001519;
CC   -!- SIMILARITY: Belongs to the heparin-binding growth factors family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; M37825; AAB06463.1; -; mRNA.
DR   EMBL; M23536; AAB60699.1; -; Genomic_DNA.
DR   EMBL; M23534; AAB60699.1; JOINED; Genomic_DNA.
DR   EMBL; M23535; AAB60699.1; JOINED; Genomic_DNA.
DR   EMBL; M23534; AAB60698.1; ALT_SEQ; Genomic_DNA.
DR   EMBL; AB016517; BAA33738.1; -; mRNA.
DR   EMBL; AF171928; AAP89742.1; -; mRNA.
DR   PIR; A31194; TVHUF5.
DR   HSSP; P08620; 1IJT.
DR   Ensembl; ENSG00000138675; Homo sapiens.
DR   HGNC; HGNC:3683; FGF5.
DR   MIM; 165190; -.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   GO; GO:0008283; P:cell proliferation; TAS.
DR   GO; GO:0007267; P:cell-cell signaling; TAS.
DR   GO; GO:0008543; P:fibroblast growth factor receptor signaling. . .; TAS.
DR   GO; GO:0007399; P:neurogenesis; TAS.
DR   InterPro; IPR002209; GF_heparin_bd.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Alternative splicing; Glycoprotein; Growth factor; Mitogen;
KW   Proto-oncogene; Signal.
FT   SIGNAL        1     17       Potential.
FT   CHAIN        18    268       Fibroblast growth factor 5.
FT   COMPBIAS     49     52       Poly-Ser.
FT   COMPBIAS     55     62       Poly-Ser.
FT   CARBOHYD    110    110       N-linked (GlcNAc. . .) (Potential).
FT   VARSPLIC    120    123       VLEI -> QVHR (in isoform Short).
FT                                /FTId=VSP_001518.
FT   VARSPLIC    124    268       Missing (in isoform Short).
FT                                /FTId=VSP_001519.
FT   CONFLICT     42     42       R -> I (in Ref. 1).
FT   CONFLICT     83     86       PSGR -> LGA (in Ref. 2).
SQ   SEQUENCE   268 AA;  29527 MW;  08F4268B26781E9D CRC64;
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  Query Match             88.4%;  Score 237;  DB 1;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 9.9e-223;
  Matches  237;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKK 237


RESULT 3
Q8NBG6_HUMAN
ID   Q8NBG6_HUMAN PRELIMINARY;      PRT;   125 AA.
AC   Q8NBG6;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Hypothetical protein FLJ33238.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   PubMed=14702039; DOI=10.1038/ng1285;
RA   Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R.,
RA   Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H.,
RA   Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S.,
RA   Yamamoto J.-I., Saito K., Kawai Y., Isono Y., Nakamura Y.,
RA   Nagahari K., Murakami K., Yasuda T., Iwayanagi T., Wagatsuma M.,
RA   Shiratori A., Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H.,
RA   Sugawara M., Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E.,
RA   Omura Y., Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M.,
RA   Yamazaki M., Ninomiya K., Ishibashi T., Yamashita H., Murakawa K.,
RA   Fujimori K., Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y.,
RA   Ishida S., Ono Y., Takiguchi S., Watanabe S., Yosida M., Hotuta T.,
RA   Kusano J., Kanehori K., Takahashi-Fujii A., Hara H., Tanase T.-O.,
RA   Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M.,
RA   Imose N., Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S.,
RA   Yoshikawa Y., Matsunawa H., Ichihara T., Shiohata N., Sano S.,
RA   Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O.,
RA   Nakagawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H.,
RA   Hishigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B.,
RA   Yamazaki M., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y.,
RA   Fujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T.,
RA   Ono T., Yamada K., Fujii Y., Ozaki K., Hirao M., Ohmori Y.,
RA   Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S.,
RA   Okitani R., Kawakami T., Noguchi S., Itoh T., Shigeta K., Senba T.,
RA   Matsumura K., Nakajima Y., Mizuno T., Morinaga M., Sasaki M.,
RA   Togashi T., Oyama M., Hata H., Watanabe M., Komatsu T.,
RA   Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA   Okumura K., Nagase T., Nomura N., Kikuchi H., Masuho Y., Yamashita R.,
RA   Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.;
RT   "Complete sequencing and characterization of 21,243 full-length human
RT   cDNAs.";
RL   Nat. Genet. 36:40-45(2004).
DR   EMBL; AK090557; BAC03477.1; -; mRNA.
DR   HSSP; Q02195; 1QQK.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; UNKNOWN_1.
SQ   SEQUENCE   125 AA;  14536 MW;  EDBB5B1C85B6BBCE CRC64;

  Query Match             46.6%;  Score 125;  DB 2;  Length 125;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-113;
  Matches  125;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        144 MSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCS 203
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCS 60

Qy        204 PRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYRL 263
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKKPPSPIKPKIPLSAPRKNTNSVKYRL 120

Qy        264 KFRFG 268
              |||||
Db        121 KFRFG 125


RESULT 4
Q6A549_HUMAN
ID   Q6A549_HUMAN PRELIMINARY;      PRT;   129 AA.
AC   Q6A549;
DT   25-OCT-2004 (TrEMBLrel. 28, Created)
DT   25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   Fibroblast growth factor 5 isoform s'.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Nakakuki T., Ueba T.;
RL   Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF355187; AAQ15127.1; -; mRNA.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   ProDom; PD000831; IL1_HBGF; 1.
SQ   SEQUENCE   129 AA;  13509 MW;  98C791EB4A754EA2 CRC64;

  Query Match             44.4%;  Score 119;  DB 2;  Length 129;
  Best Local Similarity   100.0%;  Pred. No. 1.1e-107;
  Matches  119;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPRGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLS 119
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLS 119


RESULT 5
FGF5_MOUSE
ID   FGF5_MOUSE     STANDARD;      PRT;   264 AA.
AC   P15656; O88825;
DT   01-APR-1990 (Rel. 14, Created)
DT   01-APR-1990 (Rel. 14, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Fibroblast growth factor 5 precursor (FGF-5) (HBGF-5).
GN   Name=Fgf5; Synonyms=Fgf-5;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
```

```
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE (ISOFORM LONG).
RX   MEDLINE=90201563; PubMed=2318343;
RA   Hebert J.M., Basilico C., Goldfarb M., Haub O., Martin G.R.;
RT   "Isolation of cDNAs encoding four mouse FGF family members and
RT   characterization of their expression patterns during embryogenesis.";
RL   Dev. Biol. 138:454-463(1990).
RN   [2]
RP   NUCLEOTIDE SEQUENCE (ISOFORM LONG).
RC   STRAIN=C57BL/6;
RX   MEDLINE=91045929; PubMed=1700424;
RA   Haub O., Drucker B., Goldfarb M.;
RT   "Expression of the murine fibroblast growth factor 5 gene in the adult
RT   central nervous system.";
RL   Proc. Natl. Acad. Sci. U.S.A. 87:8022-8026(1990).
RN   [3]
RP   NUCLEOTIDE SEQUENCE (ISOFORM SHORT).
RX   MEDLINE=99003286; PubMed=9786939; DOI=10.1074/jbc.273.44.29262;
RA   Ozawa K., Suzuki S., Asada M., Tomooka Y., Li A.J., Yoneda A.,
RA   Komi A., Imamura T.;
RT   "An alternatively spliced fibroblast growth factor (FGF)-5 mRNA is
RT   abundant in brain and translates into a partial agonist/antagonist for
RT   FGF-5 neurotrophic activity.";
RL   J. Biol. Chem. 273:29262-29271(1998).
RN   [4]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM LONG).
RC   STRAIN=C57BL/6J; TISSUE=Skin;
RX   MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
RA   Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA   Nikaido I., Osato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA   Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,
RA   Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA   Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA   Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA   Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA   Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA   Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA   Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA   Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA   Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA   Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA   Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA   Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA   Sandelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
RA   Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA   Verardo R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C.,
RA   Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang L.,
RA   Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA   Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA   Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA   Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA   Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A.,
RA   Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA   Birney E., Hayashizaki Y.;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
RN   [5]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA] (ISOFORM LONG).
RC   STRAIN=C57BL/6J; TISSUE=Embryo;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Long;
CC         IsoId=P15656-1; Sequence=Displayed;
CC       Name=Short; Synonyms=FGF-5S;
CC         IsoId=P15656-2; Sequence=VSP_001520, VSP_001521;
CC   -!- SIMILARITY: Belongs to the heparin-binding growth factors family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; M30643; AAA96698.1; -; mRNA.
DR   EMBL; M37823; AAB02660.1; -; Genomic_DNA.
DR   EMBL; M37821; AAB02660.1; JOINED; Genomic_DNA.
DR   EMBL; M37822; AAB02660.1; JOINED; Genomic_DNA.
DR   EMBL; M37821; AAB02659.1; ALT_SEQ; Genomic_DNA.
DR   EMBL; AB016516; BAA33737.1; -; mRNA.
DR   EMBL; AK028694; BAC26069.1; -; mRNA.
DR   EMBL; AK028894; BAC26179.1; -; mRNA.
DR   EMBL; BC071227; AAH71227.1; -; mRNA.
DR   PIR; A36207; A36207.
DR   HSSP; P08620; 1IJT.
DR   Ensembl; ENSMUSG00000029337; Mus musculus.
DR   MGI; MGI:95519; Fgf5.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   GO; GO:0010001; P:glial cell differentiation; IMP.
DR   InterPro; IPR002209; GF_heparin_bd.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Alternative splicing; Glycoprotein; Growth factor; Mitogen;
KW   Proto-oncogene; Signal.
FT   SIGNAL       1     17       Potential.
FT   CHAIN       18    264       Fibroblast growth factor 5.
FT   COMPBIAS    53     59       Poly-Ser.
FT   CARBOHYD   108    108       N-linked (GlcNAc. . .) (Potential).
FT   VARSPLIC   118    121       ILEI -> QIYG (in isoform Short).
FT                               /FTId=VSP_001520.
FT   VARSPLIC   122    264       Missing (In isoform Short).
FT                               /FTId=VSP_001521.
SQ   SEQUENCE   264 AA;  29103 MW;  F6A9C8153EE923D1 CRC64;

  Query Match             33.6%;  Score 90;  DB 1;  Length 264;
  Best Local Similarity   100.0%;  Pred. No. 4.7e-79;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 178

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 210
              ||||||||||||||||||||||||||||||
Db        179 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 208


RESULT 6
FGF5_RAT
ID   FGF5_RAT       STANDARD;      PRT;   266 AA.
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AC   P48807; Q63402;
DT   01-FEB-1996 (Rel. 33, Created)
DT   01-FEB-1996 (Rel. 33, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Fibroblast growth factor 5 precursor (FGF-5) (HBGF-5).
GN   Name=Fgf5; Synonyms=Fgf-5;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   NUCLEOTIDE SEQUENCE (ISOFORMS LONG AND SHORT).
RC   STRAIN=Wistar;
RX   MEDLINE=96201703; PubMed=8611621; DOI=10.1016/0167-4781(19)60001-1;
RA   Hattori Y., Yamasaki M., Itoh N.;
RT   "The rat FGF-5 mRNA variant generated by alternative splicing encodes
RT   a novel truncated form of FGF-5.";
RL   Biochim. Biophys. Acta 1306:31-33(1996).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=2;
CC       Name=Long;
CC         IsoId=P48807-1; Sequence=Displayed;
CC       Name=Short; Synonyms=FGF-5S;
CC         IsoId=P48807-2; Sequence=VSP_001522, VSP_001523;
CC   -!- SIMILARITY: Belongs to the heparin-binding growth factors family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; D64085; BAA10966.1; -; mRNA.
DR   EMBL; D64086; BAA10967.1; -; mRNA.
DR   PIR; S68144; S68144.
DR   PIR; S68145; S68145.
DR   HSSP; P08620; 1IJT.
DR   Ensembl; ENSRNOG00000022631; Rattus norvegicus.
DR   RGD; 620129; Fgf5.
DR   GO; GO:0008083; F:growth factor activity; IDA.
DR   GO; GO:0005163; F:nerve growth factor receptor binding; TAS.
DR   GO; GO:0008283; P:cell proliferation; IDA.
DR   InterPro; IPR002209; GF_heparin_bd.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Alternative splicing; Glycoprotein; Growth factor; Mitogen;
KW   Proto-oncogene; Signal.
FT   SIGNAL        1     17       Potential.
FT   CHAIN        18    266       Fibroblast growth factor 5.
FT   COMPBIAS     54     59       Poly-Ser.
FT   CARBOHYD    108    108       N-linked (GlcNAc. . .) (Potential).
FT   VARSPLIC    118    121       ILEI -> QIYR (in isoform Short).
FT                                /FTId=VSP_001522.
FT   VARSPLIC    122    266       Missing (in isoform Short).
FT                                /FTId=VSP_001523.
SQ   SEQUENCE   266 AA;  29264 MW;  95B0A0CA7C0A200C CRC64;

  Query Match             33.6%;  Score 90;  DB 1;  Length 266;
  Best Local Similarity   100.0%;  Pred. No. 4.7e-79;
  Matches   90;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        119 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 178

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 210
              ||||||||||||||||||||||||||||||
Db        179 TEKTGREWYVALNKRGKAKRGCSPRVKPQH 208


RESULT 7
Q8SQ73_CANFA
ID   Q8SQ73_CANFA PRELIMINARY;      PRT;   153 AA.
AC   Q8SQ73;
DT   01-JUN-2002 (TrEMBLrel. 21, Created)
DT   01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   FGF-5 (Fragment).
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC   Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Cartright J.M.;
RL   Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY074893; AAL82819.1; -; Genomic_DNA.
DR   EMBL; AY074892; AAL82819.1; JOINED; Genomic_DNA.
DR   HSSP; Q02195; 1QQK.
DR   SMR; Q8SQ73; 163-223.
DR   Ensembl; ENSCAFG00000008886; Canis familiaris.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002209; HB/F_growthfact.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; UNKNOWN_1.
KW   Growth factor.
FT   NON_TER       1      1
SQ   SEQUENCE   153 AA;  17420 MW;  ABF13D0921376295 CRC64;

  Query Match             22.4%;  Score 60;  DB 2;  Length 153;
  Best Local Similarity   100.0%;  Pred. No. 6e-50;
  Matches   60;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          6 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 65


RESULT 8
Q6XK01_RABIT
ID   Q6XK01_RABIT PRELIMINARY;      PRT;    99 AA.
AC   Q6XK01;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Fibroblast growth factor 5 (Fragment).
GN   Name=FGF5;
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC   Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=rex;
RA   Mulsant P., de Rochambeau H., Thebault R.-G.;
RL   Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY230008; AAP55849.1; -; mRNA.
FT   NON_TER       1      1
FT   NON_TER      99     99
SQ   SEQUENCE   99 AA;  10074 MW;  DC2F2385BBFD427B CRC64;

  Query Match             11.2%;  Score 30;  DB 2;  Length 99;
  Best Local Similarity   100.0%;  Pred. No. 8.5e-21;
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```
  Matches   30;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         63 PAASLGSQGSGLEQSSFQWSPSGRRTGSLY 92
              ||||||||||||||||||||||||||||||
Db         70 PAASLGSQGSGLEQSSFQWSPSGRRTGSLY 99


RESULT 9
Q6XK00_RABIT
ID   Q6XK00_RABIT PRELIMINARY;      PRT;    79 AA.
AC   Q6XK00;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Fibroblast growth factor 5 (Fragment).
GN   Name=FGF5;
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC   Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=rex;
RA   Mulsant P., de Rochambeau H., Thebault R.-G.;
RL   Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY230009; AAP55850.1; -; mRNA.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   ProDom; PD000831; IL1_HBGF; 1.
FT   NON_TER       1      1
FT   NON_TER      79     79
SQ   SEQUENCE   79 AA;  9056 MW;  8C50A729F49955E0 CRC64;

  Query Match             10.8%;  Score 29;  DB 2;  Length 79;
  Best Local Similarity   100.0%;  Pred. No. 6.5e-20;
  Matches   29;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        212 STHFLPRFKQSEQPELSFTVTVPEKKKPP 240
              |||||||||||||||||||||||||||||
Db         31 STHFLPRFKQSEQPELSFTVTVPEKKKPP 59


RESULT 10
Q5TLE2_BRARE
ID   Q5TLE2_BRARE PRELIMINARY;      PRT;   225 AA.
AC   Q5TLE2;
DT   01-FEB-2005 (TrEMBLrel. 29, Created)
DT   01-FEB-2005 (TrEMBLrel. 29, Last sequence update)
DT   01-FEB-2005 (TrEMBLrel. 29, Last annotation update)
DE   FGF5.
GN   Name=fgf5;
OS   Brachydanio rerio (Zebrafish) (Danio rerio).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC   Cyprinidae; Danio.
OX   NCBI_TaxID=7955;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Itoh N.;
RT   "Danio rerio fibroblast growth factor 5 (fgf5) mRNA.";
RL   Submitted (NOV-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AB194699; BAD69616.1; -; mRNA.
DR   ZFIN; ZDB-GENE-050201-6; fgf5.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002209; HB/F_growthfact.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Growth factor.
SQ   SEQUENCE   225 AA;  25933 MW;  329EAEDBE071308C CRC64;

  Query Match             7.8%;  Score 21;  DB 2;  Length 225;
  Best Local Similarity   100.0%;  Pred. No. 1.1e-11;
  Matches   21;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        156 FTDDCKFRERFQENSYNTYAS 176
              |||||||||||||||||||||
Db        110 FTDDCKFRERFQENSYNTYAS 130


RESULT 11
Q4RPQ6_TETNG
ID   Q4RPQ6_TETNG PRELIMINARY;      PRT;   230 AA.
AC   Q4RPQ6;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Chromosome 12 SCAF15007, whole genome shotgun sequence.
DE   (Fragment).
GN   ORFNames=GSTENG00030976001;
OS   Tetraodon nigroviridis (Green puffer).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC   Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC   Tetradontoidea; Tetraodontidae; Tetraodon.
OX   NCBI_TaxID=99883;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
RA   Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
RA   Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
RA   Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
RA   Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
RA   Biemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
RA   Cruaud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
RA   Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,
RA   Kellis M., Volff JN., Guigo R., Zody M.C., Mesirov J.,
RA   Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
RA   Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
RA   Wincker P., Lander E.S., Weissenbach J., Roest Crollius H.;
RT   "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
RT   the early vertebrate proto-karyotype.";
RL   Nature 431:946-957(2004).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RG   Genoscope; Whitehead Institute Centre for Genome Research;
RL   Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- CAUTION: The sequence shown here is derived from an
CC       EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
CC       preliminary data.
DR   EMBL; CAAE01015007; CAG09626.1; -; Genomic_DNA.
DR   InterPro; IPR002209; GF_heparin_bd.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   PRINTS; PR00263; HBGFFGF.
DR   PRINTS; PR00262; IL1HBGF.
DR   ProDom; PD000831; IL1_HBGF; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Growth factor.
FT   NON_TER     230    230
SQ   SEQUENCE   230 AA;  26100 MW;  42BB6EDCE908EC0A CRC64;

  Query Match             7.1%;  Score 19;  DB 2;  Length 230;
  Best Local Similarity   100.0%;  Pred. No. 1e-09;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        158 DDCKFRERFQENSYNTYAS 176
              |||||||||||||||||||
Db        110 DDCKFRERFQENSYNTYAS 128
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RESULT 12
Q8WN07_CANFA
ID   Q8WN07_CANFA PRELIMINARY;      PRT;    87 AA.
AC   Q8WN07;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Fibroblast growth factor 5 (Fragment).
GN   Name=FGF-5;
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
OC   Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Cartwright J.M.;
RL   Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF453760; AAL50825.1; -; Genomic_DNA.
DR   HSSP; P08620; 1IJT.
DR   Ensembl; ENSCAFG00000008885; Canis familiaris.
DR   GO; GO:0008083; F:growth factor activity; IEA.
DR   InterPro; IPR002348; IL1_HBGF.
DR   Pfam; PF00167; FGF; 1.
DR   ProDom; PD000831; IL1_HBGF; 1.
FT   NON_TER       1      1
FT   NON_TER      87     87
SQ   SEQUENCE   87 AA;  8491 MW;  940B9B02538C38CF CRC64;

  Query Match             6.0%;  Score 16;  DB 2;  Length 87;
  Best Local Similarity   100.0%;  Pred. No. 3.6e-07;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         94 RVGIGFHLQIYPDGKV 109
              ||||||||||||||||
Db         72 RVGIGFHLQIYPDGKV 87


RESULT 13
O13543_YEAST
ID   O13543_YEAST PRELIMINARY;      PRT;   109 AA.
AC   O13543;
DT   01-JAN-1998 (TrEMBLrel. 05, Created)
DT   01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
DT   10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE   Ylr294cp (YLR294C).
GN   OrderedLocusNames=YLR294C;
OS   Saccharomyces cerevisiae (Baker's yeast).
OC   Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC   Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX   NCBI_TaxID=4932;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=97313267; PubMed=9169871;
RA   Johnston M., Hillier L.W., Riles L., Albermann K., Andre B.,
RA   Ansorge W., Benes V., Brueckner M., Delius H., Dubois E.,
RA   Duesterhoeft A., Entian K.-D., Floeth M., Goffeau A., Hebling U.,
RA   Heumann K., Heuss-Neitzel D., Hilbert H., Hilger F., Kleine K.,
RA   Koetter P., Louis E.J., Messenguy F., Mewes H.-W., Miosga T.,
RA   Moestl D., Mueller-Auer S., Nentwich U., Obermaier B., Piravandi E.,
RA   Pohl T.M., Portetelle D., Purnelle B., Rechmann S., Rieger M.,
RA   Rinke M., Rose M., Scharfe M., Scherens B., Scholler P., Schwager C.,
RA   Schwarz S., Underwood A.P., Urrestarazu L.A., Vandenbol M.,
RA   Verhasselt P., Vierendeels F., Voet M., Volckaert G., Voss H.,
RA   Wambutt R., Wedler E., Wedler H., Zimmermann F.K., Zollner A.,
RA   Hani J., Hoheisel J.D.;
RT   "The nucleotide sequence of Saccharomyces cerevisiae chromosome XII.";
RL   Nature 387:87-90(1997).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RA   Pauley A.;
RL   Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RA   Waterston R.;
RL   Submitted (NOV-1994) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RA   Cherry J.M.;
RL   Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
RN   [5]
RP   NUCLEOTIDE SEQUENCE.
RA   Marsischky G., Rolfs A., Richardson A., Kane M., Baqui M., Taycher E.,
RA   Hu Y., Vannberg F., Weger J., Kramer J., Moreira D., Kelley F.,
RA   Zuo D., Raphael J., Hogle C., Jepson D., Williamson J., Camargo A.,
RA   Gonzaga L., Vasconcelos A.T., Simpson A., Kolodner R., Harlow E.,
RA   LaBaer J.;
RL   Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; U17243; AAB67352.1; -; Genomic_DNA.
DR   EMBL; AY558218; AAS56544.1; -; Genomic_DNA.
DR   PIR; S69307; S69307.
DR   IntAct; O13543; -.
KW   Complete proteome.
SQ   SEQUENCE   109 AA;  13120 MW;  02E1B166CFC70BEC CRC64;

  Query Match             3.7%;  Score 10;  DB 2;  Length 109;
  Best Local Similarity   100.0%;  Pred. No. 0.33;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 SLSFLLLLFF 11
              ||||||||||
Db         82 SLSFLLLLFF 91


RESULT 14
Q7Y0C1_ORYSA
ID   Q7Y0C1_ORYSA PRELIMINARY;      PRT;   349 AA.
AC   Q7Y0C1;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Putative Dof zinc finger protein.
GN   Name=OSJNBa0079B15.26;
OS   Oryza sativa (japonica cultivar-group).
OC   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC   Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC   Ehrhartoideae; Oryzeae; Oryza.
OX   NCBI_TaxID=39947;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Buell C.R., Yuan Q., Ouyang S., Liu J., Gansberger K., Jones K.M.,
RA   Overton II L.L., Tsitrin T., Kim M.M., Bera J.J., Jin S.S.,
RA   Fadrosh D.W., Tallon L.J., Koo H., Zismann V., Hsiao J., Blunt S.,
RA   Vanaken S.S., Riedmuller S.B., Utterback T.T., Feldblyum T.V.,
RA   Yang Q.Q., Haas B.J., Suh B.B., Peterson J.J., Quackenbush J.,
RA   White O., Salzberg S.L., Fraser C.M.;
RL   Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RA   Buell R.;
RL   Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AC099043; AAP50963.1; -; Genomic_DNA.
DR   Gramene; Q7Y0C1; -.
DR   GO; GO:0003677; F:DNA binding; IEA.
DR   InterPro; IPR003851; Znf_Dof.
DR   Pfam; PF02701; zf-Dof; 1.
DR   PROSITE; PS01361; ZF_DOF_1; UNKNOWN_1.
DR   PROSITE; PS50884; ZF_DOF_2; 1.
SQ   SEQUENCE   349 AA;  35653 MW;  7C8BBF28AC6CAFD8 CRC64;

  Query Match             3.7%;  Score 10;  DB 2;  Length 349;
  Best Local Similarity   100.0%;  Pred. No. 0.94;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy         57 SSASSSPAAS 66
              ||||||||||
Db        249 SSASSSPAAS 258


RESULT 15
Q54TY7_DICDI
ID   Q54TY7_DICDI PRELIMINARY;      PRT;   418 AA.
AC   Q54TY7;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   MADS-box transcription factor.
GN   Name=srfA; ORFNames=DDB0214892;
OS   Dictyostelium discoideum (Slime mold).
OC   Eukaryota; Mycetozoa; Dictyosteliida; Dictyostelium.
OX   NCBI_TaxID=44689;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=AX4;
RA   Eichinger L., Pachebat J.A., Gloeckner G., Rajandream M.-A.,
RA   Sucgang R., Berriman M., Song J., Olsen R., Szafranski K., Xu Q.,
RA   Tunggal B., Kummerfeld S., Madera M., Konfortov B.A., Rivero F.,
RA   Bankier A.T., Lehmann R., Hamlin N., Davies R., Gaudet P., Fey P.,
RA   Pilcher K., Chen G., Saunders D., Sodergren E., Davis P.,
RA   Kerhornou A., Nie X., Hall N., Anjard C., Hemphill L., Bason N.,
RA   Farbrother P., Desany B., Just E., Morio T., Rost R., Churcher C.,
RA   Cooper J., Haydock S., van Driessche N., Cronin A., Goodhead I.,
RA   Muzny D., Mourier T., Pain A., Lu M., Harper D., Lindsay R.,
RA   Hauser H., James K., Quiles M., Mohan M.B., Saito T., Buchrieser C.,
RA   Wardroper A., Felder M., Thangavelu M., Johnson D., Knights A.,
RA   Loulseged H., Mungall K., Oliver K., Price C., Quail M.A.,
RA   Urushihara H., Hernandez J., Rabbinowitsch E., Steffen D., Sanders M.,
RA   Ma J., Kohara Y., Sharp S., Simmonds M., Spiegler S., Tivey A.,
RA   Sugano S., White B., Walker D., Woodward J., Winckler T., Tanaka Y.,
RA   Shaulsky G., Schleicher M., Weinstock G., Rosenthal A., Cox E.C.,
RA   Chisholm R.L., Gibbs R., Loomis W.F., Platzer M., Kay R.R.,
RA   Williams J., Dear P.H., Noegel A.A., Barrell B., Kuspa A.;
RT   "The genome of the social amoeba Dictyostelium discoideum.";
RL   Nature 0:0-0(2005).
CC   -!- CAUTION: The sequence shown here is derived from an
CC       EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
CC       preliminary data.
DR   EMBL; AAFI01000074; EAL66675.1; -; Genomic_DNA.
DR   GO; GO:0005634; C:nucleus; IEA.
DR   GO; GO:0003700; F:transcription factor activity; IEA.
DR   GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.
KW   DNA-binding; Nuclear protein; Transcription; Transcription regulation.
SQ   SEQUENCE   418 AA;  47546 MW;  8C86042A75C82D8A CRC64;

  Query Match             3.7%;  Score 10;  DB 2;  Length 418;
  Best Local Similarity   100.0%;  Pred. No. 1.1;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         55 SSSSASSSPA 64
              ||||||||||
Db        388 SSSSASSSPA 397


Search completed: April 11, 2006, 03:36:41
Job time : 74 secs
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GenCore version 5.1.7


OM protein - protein search, using sw model

Run on: April 11, 2006, 03:25:35 ; Search time 77 Seconds
(without alignments)
1529.266 Million cell updates/sec

Title: US-10-089-485-4
Perfect score: 268
Sequence: 1 MSLSFLLLLFFSHLILSAWA.....LSAPRKNTNSVKYRLKFRFG 268

Scoring table: OLIGO
Gapop 60.0 , Gapext 60.0

Searched: 2443163 seqs, 439378781 residues

Word size : 1

Total number of hits satisfying chosen parameters: 2442881

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 268 | 100.0 | 268 | 2 | AAR70813 | Aar70813 FGF-5. 3/ |
| 2 | 268 | 100.0 | 268 | 2 | AAR80780 | Aar80780 Fibroblas |
| 3 | 268 | 100.0 | 268 | 2 | AAW75715 | Aaw75715 Fibroblas |
| 4 | 268 | 100.0 | 268 | 2 | AAY08585 | Aay08585 Human FGF |
| 5 | 268 | 100.0 | 268 | 3 | AAY32337 | Aay32337 Human fib |
| 6 | 268 | 100.0 | 268 | 3 | AAY90414 | Aay90414 FGF-5, SE |
| 7 | 268 | 100.0 | 268 | 4 | AAE00636 | Aae00636 Human MUS |
| 8 | 268 | 100.0 | 268 | 4 | AAE04405 | Aae04405 Human fib |
| 9 | 268 | 100.0 | 268 | 4 | AAB50701 | Aab50701 Human fib |
| 10 | 268 | 100.0 | 268 | 4 | AAB85816 | Aab85816 Human fib |
| 11 | 268 | 100.0 | 268 | 7 | ADC34580 | Adc34580 Human fib |
| 12 | 268 | 100.0 | 268 | 7 | ADH92004 | Adh92004 Fibroblas |
| 13 | 268 | 100.0 | 268 | 8 | ADS20334 | Ads20334 Fibroblas |
| 14 | 246 | 91.8 | 246 | 4 | AAE00639 | Aae00639 Human fib |
| 15 | 226 | 84.3 | 247 | 2 | AAY31793 | Aay31793 Human fib |
| 16 | 226 | 84.3 | 248 | 2 | AAY31791 | Aay31791 Human fib |
| 17 | 226 | 84.3 | 268 | 2 | AAY31792 | Aay31792 Human fib |
| 18 | 226 | 84.3 | 268 | 3 | AAB10296 | Aab10296 Fibroblas |
| 19 | 226 | 84.3 | 268 | 4 | AAB61660 | Aab61660 FGF5 prot |
| 20 | 226 | 84.3 | 268 | 6 | ABP54276 | Abp54276 Human fib |
| 21 | 226 | 84.3 | 268 | 6 | ADA95451 | Ada95451 Fibroblas |
| 22 | 226 | 84.3 | 268 | 7 | ADD66124 | Add66124 Fibroblas |
| 23 | 226 | 84.3 | 268 | 8 | ADT97922 | Adt97922 Human ker |
| 24 | 226 | 84.3 | 268 | 9 | ADX69307 | Adx69307 Human hep |
| 25 | 195 | 72.8 | 246 | 4 | AAE00640 | Aae00640 Human fib |
| 26 | 195 | 72.8 | 268 | 4 | AAE00642 | Aae00642 Human fib |
| 27 | 182 | 67.9 | 266 | 3 | AAY87858 | Aay87858 Human FGF |
| 28 | 182 | 67.9 | 266 | 6 | ABG74160 | Abg74160 Human fib |
| 29 | 182 | 67.9 | 266 | 6 | ABG72719 | Abg72719 Recombina |
| 30 | 182 | 67.9 | 267 | 1 | AAP82964 | Aap82964 Encoded b |
| 31 | 182 | 67.9 | 267 | 2 | AAR48064 | Aar48064 FGF-3 cDN |
| 32 | 182 | 67.9 | 267 | 2 | AAW22600 | Aaw22600 Human fib |
| 33 | 182 | 67.9 | 267 | 4 | AAB50709 | Aab50709 Human fib |
| 34 | 182 | 67.9 | 267 | 4 | AAE00645 | Aae00645 Human fib |
| 35 | 182 | 67.9 | 267 | 4 | AAG65651 | Aag65651 Human fib |
| 36 | 182 | 67.9 | 267 | 4 | AAB50277 | Aab50277 Human FGF |
| 37 | 182 | 67.9 | 267 | 5 | AAE18810 | Aae18810 Human FGF |
| 38 | 182 | 67.9 | 267 | 5 | ABB99124 | Abb99124 Human fib |
| 39 | 182 | 67.9 | 267 | 8 | ADM94750 | Adm94750 Human fib |
| 40 | 176 | 65.7 | 176 | 4 | AAE00637 | Aae00637 Human fib |
| 41 | 167 | 62.3 | 268 | 2 | AAR75703 | Aar75703 Human FGF |
| 42 | 151 | 56.3 | 266 | 3 | AAY87852 | Aay87852 Human FGF |
| 43 | 151 | 56.3 | 266 | 6 | ABG73848 | Abg73848 Human fib |
| 44 | 151 | 56.3 | 266 | 6 | ABG72713 | Abg72713 Recombina |
| 45 | 151 | 56.3 | 268 | 2 | AAW53031 | Aaw53031 Fibroblas |

ALIGNMENTS

RESULT 1
AAR70813
ID AAR70813 standard; protein; 268 AA.
XX
AC AAR70813;
XX
DT 25-MAR-2003 (revised)
DT 01-SEP-1995 (first entry)
XX
DE FGF-5.
XX
KW FGF-5; fibroblast growth factor; cytotoxic conjugate; fusion protein;
KW saporin; cytostatic; tumor; diabetes; rheumatoid arthritis.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 19
FT /note= "Cys may be replaced by Ser"
FT Misc-difference 93
FT /note= "Cys may be replaced by Ser"
FT Misc-difference 202
FT /note= "Cys may be replaced by Ser"
XX
PN WO9503831-A1.
XX
PD 09-FEB-1995.
XX
PF 27-JUL-1994; 94WO-US008511.
XX
PR 02-AUG-1993; 93US-00099924.
PR 29-OCT-1993; 93US-00145829.
XX
PA (PRIZ-) PRIZM PHARM INC.
PA (WHIT-) WHITTIER INST DIABETES & ENDOCRINOLOGY.
XX
PI Sosnowski BA, Lappi DA, Baird AJ;
XX
DR WPI; 1995-082038/11.
XX
PT New monogenous preparations of cytotoxic conjugates and DNA - contain
PT fibroblast growth factors and cytotoxic agents for treating FGF
PT conditions such as tumours, diabetes and rheumatoid arthritis.
XX
PS Disclosure; Page 112; 128pp; English.
XX
CC Novel fusion proteins comprise FGF linked to saporin. FGF-1 to -9 may be

```
CC   used, pref. FGF-1 (AAR70812), FGF-5 (AAR70813), FGF-7 (AAR70814) or FGF-8
CC   (AAR70815) muteins, in which at least 1 Cys residue is replaced by
CC   conservative Ser substitutions. The fusion proteins are potent cytocidal
CC   agents to cells bearing the FGF receptor. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 2
AAR80780
ID   AAR80780 standard; protein; 268 AA.
XX
AC   AAR80780;
XX
DT   13-MAY-1996  (first entry)
XX
DE   Fibroblast growth factor 5, FGF-5.
XX
KW   Conjugate; fibroblast growth factor; FGF; cytotoxin; saporin; eye;
KW   cell proliferation; regulation; pterygia; corneal clouding; cancer;
KW   psoriasis; rheumatoid arthritis.
XX
OS   Homo sapiens.
XX
PN   WO9524928-A2.
XX
PD   21-SEP-1995.
XX
PF   15-MAR-1995;   95WO-US003448.
XX
PR   15-MAR-1994;   94US-00213446.
PR   15-MAR-1994;   94US-00213447.
XX
PA   (PRIZ-) PRIZM PHARM INC.
XX
PI   Sosnowski BA,  Baird JA,  Houston LL,  Nova MP;
XX
DR   WPI; 1995-336820/43.
XX
PT   New conjugates of growth factor receptor ligand and targetted agent -
PT   partic. DNA or cytotoxin, used to control cell proliferation in the eye,
PT   e.g. to prevent growth of pterygii and corneal clouding.
XX
PS   Claim 33; Page 144; 204pp; English.
XX
CC   AAR80776-84 are fibroblast growth factors (FGF) FGF-1 to FGF-9
CC   respectively. DNA encoding these fibroblast growth factors can be used to
CC   create an FGF/saporin fusion protein. DNA encoding such fusion proteins
CC   are useful for targetting saporin (a cytotoxin) to a cell carrying the
CC   FGF receptor. Targetted agents (TA) other than saporin which may be used
CC   include in partic. DNA encoding a therapeutic protein, antisense DNA or
CC   other cytotoxic agent. The linker sequence within the fusion protein may
CC   increases serum stability or intracellular availability of the TA. The
CC   conjugates of the invention are used to inhibit cell proliferation in
CC   cells carrying the particular growth factor receptor; also when TA is DNA
CC   it can be used to deliver this to cells (for gene therapy). A specific
CC   application is to prevent excessive proliferation of epithelial cells,
CC   fibroblasts and keratinocytes in the anterior eye after surgery, partic.
CC   to prevent recurrence of pterygii after surgical removal, closure of
CC   trabeculectomy after glaucoma surgery and corneal clouding after excimer
CC   laser treatment. Other conditions which may be treated include tumours,
CC   restenosis, psoriasis, Dupuytren's contracture, diabetic complications,
CC   Kaposi's sarcoma and rheumatoid arthritis
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 3
AAW75715
ID   AAW75715 standard; protein; 268 AA.
XX
AC   AAW75715;
XX
DT   07-DEC-1998  (first entry)
XX
DE   Fibroblast growth factor-5.
XX
KW   Fibroblast growth factor-5; FGF-5; mutein; protein engineering; heparin;
KW   thrombosis; thromocytopenia; ophthalmic disorder; human; therapy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 162
FT                   /note= "Phe-162 is replaced by another amino acid acid
FT                   (Claim 3), preferably Ala, Phe, Ser, Gly, Met, Leu or
FT                   Tyr, especially Ala, Gly or Ser"
FT   Misc-difference 164
FT                   /note= "Glu-164 may be replaced by another amino acid
FT                   (Claim 7), preferably Ala, Gly or Ser"
FT   Misc-difference 169
FT                   /note= "Asn-169 may be replaced by another amino acid
FT                   (Claim 2), preferably Ala, Phe, Ser, Gly, Met, Leu or
FT                   Tyr, especially Ala, Gly or Ser"
FT   Misc-difference 172
FT                   /note= "Asn-172 may be replaced by another amino acid
FT                   (Claim 1), preferably Ala, Phe, Ser, Gly, Met, Leu or
```

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FT                    Tyr, especially Ala, Gly or Ser"
XX
PN   WO9839436-A2.
XX
PD   11-SEP-1998.
XX
PF   03-MAR-1998;   98WO-JP000878.
XX
PR   03-MAR-1997;   97US-0040785P.
XX
PA   (EISA ) EISAI CO LTD.
XX
PI   Zhu H,  Kalyanaraman R,  Kawai T;
XX
DR   WPI; 1998-495843/42.
XX
PT   Fibroblast growth factor mutein and DNA - having reduced receptor binding
PT   and able to bind heparin, useful for treating and regulating heparin-
PT   related disorders e.g. thrombosis.
XX
PS   Disclosure; Page 55-56; 71pp; English.
XX
CC   This is the amino acid sequence of fibroblast growth factor-5 (FGF-5).
CC   Claimed DNA molecules of the invention encode FGF mutein polypeptides
CC   (see AAW75711-20) that show reduced FGF receptor binding activity but
CC   which retain the ability to bind heparin. For FGF-5, amino acid residues
CC   162, 169 and 172 are preferably replaced by other amino acid residues,
CC   with an optional further replacement of the Glu-164 residue. The mutein
CC   may be further modified by replacement of the Cys residues to reduce
CC   aggregation. The mutein is obtained by site-specific or site-directed
CC   mutagenesis of FGF-5 DNA, incorporation of the mutated DNA into a vector
CC   and expression in host cells. The FGF muteins are used to treat heparin-
CC   related disorders, such as excessive bleeding induced by heparin,
CC   ophthalmic disorders and heparin-associated thrombocytopenia and
CC   thrombosis. They may also be used for drug design
XX
SQ   Sequence 268 AA;

  Query Match           100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 4
AAY08585
ID   AAY08585 standard; protein; 268 AA.
XX
AC   AAY08585;
XX
DT   05-AUG-1999  (first entry)
XX
DE   Human FGF-5 protein fragment.
XX
KW   PRO533; FGF-19; fibroblast growth factor; human; diagnosis; treatment;
KW   tumour; neoplastic cell growth; cell proliferation; tumorgenesis; cancer;
KW   autocrine signalling; FGF-5.
XX
OS   Homo sapiens.
XX
PN   WO9927100-A1.
XX
PD   03-JUN-1999.
XX
PF   25-NOV-1998;   98WO-US025190.
XX
PR   25-NOV-1997;   97US-0066840P.
PR   21-SEP-1998;   98US-00158342.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Botstein D,  Goddard A,  Gurney AL,  Hillan KJ,  Lawrence DA,  Roy MA;
XX
DR   WPI; 1999-347718/29.
XX
PT   Nucleic acid encoding fibroblast growth factor - 19, useful for the
PT   diagnosis, prevention and treatment of cancers.
XX
PS   Disclosure; Fig 11; 88pp; English.
XX
CC   This invention describes a novel human fibroblast growth factor, PRO533,
CC   also known as fibroblast growth factor-19 (FGF-19). The nucleic acids,
CC   methods and PRO533 polypeptides disclosed may be used in the diagnosis
CC   and treatment of tumours and/or conditions characterized by modulation of
CC   PRO533 expression, or in the preparation of compositions for such
CC   therapies. These compositions and methods may be used in the diagnosis
CC   and treatment of neoplastic cell growth and proliferation in mammals
CC   (especially humans). The invention is based on the identification of
CC   genes that are amplified in the genome of tumour cells. Such gene
CC   amplification is expected to be associated with the over expression of
CC   the gene product and contribute to tumourgenesis and/or autocrine
CC   signalling. Accordingly, the proteins encoded by the amplified genes are
CC   believed to be useful targets for the diagnosis and/or treatment of
CC   certain cancers and may act as predictors of the prognosis for tumour
CC   treatments
XX
SQ   Sequence 268 AA;

  Query Match           100.0%;  Score 268;  DB 2;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 5
AAY32337
ID   AAY32337 standard; protein; 268 AA.
XX
```

AC AAY32337;
XX
DT 28-FEB-2000 (first entry)
XX
DE Human fibroblast growth factor 5.
XX
KW Fibroblast growth factor 5; FGF-5; human; mutein; vascular disorder;
KW smooth muscle cell proliferation; rheumatoid arthritis; tumour;
KW angiogenesis; Kaposi's sarcoma; restenosis; ophthalmic disorder;
KW psoriasis; coagulant; heparin; thrombosis; thrombocytopenia.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 156
FT /note= "replaced with another amino acid in claimed
FT mutein of Claim 5"
FT Misc-difference 161
FT /note= "replaced with another amino acid in claimed
FT mutein of Claim 7"
FT Misc-difference 214
FT /note= "replaced with another amino acid in claimed
FT mutein of Claim 1"
XX
PN WO9955861-A2.
XX
PD 04-NOV-1999.
XX
PF 15-APR-1999; 99WO-JP002013.
XX
PR 28-APR-1998; 98US-00067929.
XX
PA (EISA ) EISAI CO LTD.
XX
PI Zhu H, Kalyanaraman R;
XX
DR WPI; 2000-062030/05.
XX
PT New polynucleotides encoding fibroblast growth factor muteins used for
PT treatment of ophthalmic disorders, tumorigenic disorders and restenosis.
XX
PS Claim 1; Page 81-82; 93pp; English.
XX
CC This sequence represents human fibroblast growth factor 5 (FGF-5). The
CC invention relates to isolated nucleic acids encoding FGF mutein
CC polypeptides. FGF muteins that exhibit increased binding affinity for FGF
CC receptors and reduced mitogenic activity are provided. Such muteins have
CC amino acid replacements at positions corresponding to position 138 (claim
CC 1) of FGF-2 (see AAY32334). They can be used to prevent or inhibit the
CC undesired growth and proliferation of FGF-responsive cells. Such cells
CC occur in vascular disorders characterised by accelerated smooth muscle
CC cell proliferation, such as rheumatoid arthritis, tumour angiogenesis,
CC Kaposi's sarcoma, restenosis, in-stent restenosis, certain ophthalmic
CC disorders and dermatological disorders, such as psoriasis. Also provided
CC are FGF muteins that exhibit reduced receptor binding activity, but
CC retain the ability to bind heparin. These muteins have amino acid
CC replacements corresponding to positions 88 (claim 5) and 93 (claim 7) and
CC optionally position 96 of FGF-2. They can be used as coagulants for
CC heparin-associated bleeding, antagonists of heparin-induced angiogenesis,
CC and for treating heparin-induced thrombocytopenia and thrombosis. In
CC preferred muteins, the native FGF amino acid is replaced by Ala, Phe,
CC Gly, Ser, Met or Tyr, especially Ala, Gly or Ser, and particularly Ala.
CC Cys residues may also be substituted to reduced polypeptide aggregation
XX
SQ Sequence 268 AA;

Query Match 100.0%; Score 268; DB 3; Length 268;
Best Local Similarity 100.0%; Pred. No. 8.6e-250;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
```

RESULT 6
AAY90414
ID AAY90414 standard; protein; 268 AA.
XX
AC AAY90414;
XX
DT 18-JUL-2000 (first entry)
XX
DE FGF-5, SEQ ID NO:14.
XX
KW Targetted gene delivery; fibroblast growth factor receptor;
KW FGFR-binding protein; FGF-2; bFGF; nucleic acid binding protein;
KW receptor-internalised ligand; cytotoxin; saporin; gene therapy; cytocide;
KW antiproliferative; cancer; melanoma; diabetic retinopathy;
KW rheumatoid arthritis; restenosis, Dupuytren's contracture; psoriasis;
KW eczema.
XX
OS Unidentified.
XX
PN US6037329-A.
XX
PD 14-MAR-2000.
XX
PF 24-SEP-1996; 96US-00718904.
XX
PR 15-MAR-1994; 94US-00213446.
PR 15-MAR-1994; 94US-00213447.
PR 29-AUG-1994; 94US-00297961.
PR 13-SEP-1994; 94US-00305771.
PR 16-MAY-1995; 95US-00441979.
XX
PA (SELE-) SELECTIVE GENETICS INC.
XX
PI Chandler LA, Sosnowski BA, Baird JA;
XX
DR WPI; 2000-292008/25.
XX
PT Gene delivery system, useful for treating or preventing cancer and
PT rheumatoid arthritis, comprises receptor-internalized ligand linked to
PT nucleic acid binding domain and nucleic acid.
XX
PS Claim 25; Col 103-104; 131pp; English.
XX
CC The invention relates to a novel gene delivery composition for the
CC targetted delivery of cytotoxins or prodrug-converting enzymes to
CC proliferating cells. The gene delivery composition comprises a protein
CC that binds the fibroblast growth factor receptor (FGFR) which is fused or
CC chemically conjugated to a nucleic acid binding domain. The nucleic acid
CC binding domain is complexed with a suitable expression construct encoding
CC a cytotoxin such as saporin. One or more linkers may join the FGFR-
CC binding protein to the nucleic acid binding protein. These are selected
CC to increase the specificity, toxicity, solubility, serum stability or
CC intracellular availability, and may serve to promote condensation of
CC nucleic acids for delivery to a cell. The fusion protein binds to FGFR
CC and is internalised by cells that carry this receptor. The gene delivery

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CC   composition is used for the therapeutic alteration of the function, gene
CC   expression and viability of cells. In particular, it may be used for the
CC   treatment and prevention of cell proliferative disorders, for example
CC   after eye surgery, melanoma and many other sorts of cancer, rheumatoid
CC   arthritis, restenosis, Dupuytren's contracture, diabetic retinopathy,
CC   psoriasis and eczema. The gene delivery compositions of the invention
CC   have high specificity for particular cells and can deliver larger amounts
CC   of DNA compared to prior art methods. Sequences AAY90410- AAY90418
CC   represent members of the fibriblast growth factor (FGF) family of
CC   proteins. AAY90448 represents wild-type human FGF-2 (basic FGF, bFGF)
CC   which is encoded by AAA12868. AAA12897-A12900 encode the human FGF-2
CC   muteins AAY90461-Y90464, and AAY90465-Y90466 represent additional human
CC   FGF-2 muteins used in the invention. AAY90450 represents a mutagenised
CC   FGF C-terminus
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 3;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 7
AAE00636
ID   AAE00636 standard; protein; 268 AA.
XX
AC   AAE00636;
XX
DT   02-JUL-2001  (first entry)
XX
DE   Human MUSFGF5A protein of second open reading frame.
XX
KW   Human; fibroblast growth factor-5; FGF-5; neoplasm; cytostatic; RCC;
KW   renal cell carcinoma; immunomodulator; gene therapy; carcinoma; breast;
KW   prostate; bladder; pancreas; TAA; tumour associated antigen; MUSFGF-5A;
KW   horseshoe kidney; Hippel-Lindau disease; acquired renal cystic disease;
KW   adult polycystic kidney disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Region          161. .220
FT                   /label= Immunogenic_epitope
XX
PN   WO200125271-A2.
XX
PD   12-APR-2001.
XX
PF   29-SEP-2000; 2000WO-US026689.
XX
PR   02-OCT-1999;   99US-0157103P.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Hanada K,  Yang JC;
XX
DR   WPI; 2001-290607/30.
DR   N-PSDB; AAD03934.
XX
PT   Treating a subject having a neoplasm expressing fibroblast growth factor-
PT   5 (FGF-5), e.g. prostate, breast, bladder, or pancreas carcinoma,
PT   comprises modulating an immune response to FGF-5 or modulating FGF-5
PT   expression or activity.
XX
PS   Claim 7; Page 87-88; 101pp; English.
XX
CC   The present invention relates to a method for treating a subject having
CC   neoplasm expressing fibroblast growth factor-5 (FGF-5) comprises
CC   modulating an immune response to FGF-5 or FGF-5 expression or activity.
CC   FGF is a tumour associated antigen (TAA). The method is useful for
CC   treating or preventing a neoplasm such as prostate carcinoma, breast
CC   carcinoma, bladder carcinoma, pancreas carcinoma, and renal cell
CC   carcinoma (RCC) and diseases such as Hippel-Lindau disease, horseshoe
CC   kidneys, adult polycystic kidney disease and acquired renal cystic
CC   disease. FGF-5 polypeptides may be used as immunogen in the production of
CC   antibodies, which are useful in quantitative immunoassays that determine
CC   concentrations of antigen-bearing substances in biological samples, and
CC   to (semi-)quantitatively identify the presence of antigen in a biological
CC   sample. The antibodies may also be used to treat FGF-5 expressing or
CC   overexpressing tumours by decreasing FGF-5 activity, as diagnostic agents
CC   to monitor the progression or regression of an FGF-5 expressing or
CC   overexpressing tumour in a patient undergoing therapy for the treatment
CC   of neoplasm. FGF-5 cDNA is also useful in gene therapy. The present
CC   sequence is a protein encoded by the second open reading frame of human
CC   MUSFGF-5A cDNA
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 8
AAE04405
ID   AAE04405 standard; protein; 268 AA.
XX
AC   AAE04405;
XX
DT   04-SEP-2001  (first entry)
XX
DE   Human fibroblast growth factor-5 (FGF-5).
XX
KW   Human; zFGP10; fibroblast growth factor-5; FGF-5; antiatherosclerotic;
KW   vasotropic; anorectic; antipsoriatic; antidiabetic; cerebroprotective;
KW   cytostatic; vulnerary; diabetes mellitus; amyotrophic lateral sclerosis;
```

KW therapy; cerebrovascular stroke; neuropathy; angiogenesis; wound healing;
KW revascularisation; diabetic foot ulcer; stroke; coronary reperfusion;
KW ischaemia; hypertension; psoriasis; neuroblastoma; glioblastoma;
KW carcinoma; prostatic hypertrophy.
XX
OS Homo sapiens.
XX
PN WO200147957-A2.
XX
PD 05-JUL-2001.
XX
PF 28-DEC-2000; 2000WO-US035581.
XX
PR 29-DEC-1999; 99US-00474279.
XX
PA (ZYMO ) ZYMOGENETICS INC.
XX
PI Conklin DC;
XX
DR WPI; 2001-418223/44.
XX
PT Novel fibroblast growth factor homolog, zFGF10, useful for treating
PT psoriasis, stimulating proliferation of mesenchymal cells, keratinocytes
PT in culture, promoting wound healing of epidermis, improving cardiac
PT function.
XX
PS Disclosure; Page 59-60; 62pp; English.
XX
CC The present sequence is fibroblast growth factor-5 (FGF-5) from human.
CC This protein is a member of the FGF family. The present invention relates
CC to novel human zFGF10 protein and its DNA. zFGF-10 is a homologue of
CC fibroblast growth factor (FGF). The zFGF10 sequences and their antibodies
CC are useful for identifying and isolating neuronal, prostatic and
CC pancreatic cell proliferation. They are used in the treatment of
CC disorders associated with diabetes mellitus, neural cell development or
CC degeneration, amyotrophic lateral sclerosis, cerebro- vascular stroke,
CC neuropathy associated with lack of maintenance of neuronal
CC differentiation, and congenital disorders of the nervous system or lack
CC of neuronal development. zFGF-10 sequences are used for promoting
CC angiogenesis and wound healing, for revascularisation in the eye, for
CC complications related to poor circulation such as diabetic foot ulcers,
CC for stroke, following coronary reperfusion and for improving cardiac
CC function. They are used to protect and promote the recovery of the
CC epithelial cells in the gastrointestinal tract, small intestine and oral
CC mucosa after treatment with chemotherapy and/or radiation and to reduce
CC damage to the tissues caused by ischaemia or ischaemia-reperfusion
CC events, particularly in the heart or brain. They are also used for the
CC induction of skeletal muscle neogenesis and/or hyperplasia, kidney
CC regeneration and/or for treatment of systemic and pulmonary hypertension.
CC zFGF-10 proteins are used for stimulating proliferation of mesenchymal
CC cells, epidermal cells or keratinocytes. The zFGF-10 antagonists are used
CC to treat psoriasis associated with keratinocyte. zFGF-10 binding proteins
CC are useful for treating neuroblastoma, glioblastoma, prostatic
CC hypertrophy, prostatic carcinoma and pancreatic carcinoma
XX
SQ Sequence 268 AA;

Query Match 100.0%; Score 268; DB 4; Length 268;
Best Local Similarity 100.0%; Pred. No. 8.6e-250;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
Db 1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy 61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
Db 61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy 121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
Db 121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy 181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
Db 181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy 241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
Db 241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268

RESULT 9
AAB50701
ID AAB50701 standard; protein; 268 AA.
XX
AC AAB50701;
XX
DT 20-MAR-2001 (first entry)
XX
DE Human fibroblast growth factor 5 SEQ ID NO: 11.
XX
KW Human; fibroblast growth factor 11; FGF-11; cancer; autoimmune disorder;
KW hyperproliferative disorder; cardiovascular disorder; angiogenesis;
KW wound healing; neurological disease; infection.
XX
OS Homo sapiens.
XX
PN WO200071715-A1.
XX
PD 30-NOV-2000.
XX
PF 16-MAY-2000; 2000WO-US013331.
XX
PR 21-MAY-1999; 99US-0135524P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Alderson R, Melder R, Duan RD, Hu J;
XX
DR WPI; 2001-016408/02.
XX
PT Polynucleotide encoding human fibroblast growth factor 11, useful in the
PT diagnosis, treatment and prevention of cancer, immune disorders,
PT cardiovascular disorders and neurological diseases.
XX
PS Disclosure; Page 243-244; 250pp; English.
XX
CC The present invention provides the protein and coding sequences for human
CC fibroblast growth factor 11 (FGF-11). These sequences can be used in the
CC diagnosis and treatment of infections, cancer, autoimmune disorders,
CC hyperproliferative disorders, cardiovascular disorders and neurological
CC diseases, to prevent angiogenesis and to aid wound healing
XX
SQ Sequence 268 AA;

Query Match 100.0%; Score 268; DB 4; Length 268;
Best Local Similarity 100.0%; Pred. No. 8.6e-250;
Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
Db 1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy 61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
Db 61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy 121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
Db 121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy 181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
Db 181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

```
Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
```

RESULT 10
AAB85816
ID   AAB85816 standard; protein; 268 AA.
XX
AC   AAB85816;
XX
DT   29-OCT-2001  (first entry)
XX
DE   Human fibroblast growth factor (FGF)-5.
XX
KW   Fibroblast growth factor; FGF; FGF-23; osteopathic; vulnerary; ADHR;
KW   hepatotropic; autosomal dominant hypophosphatemic rickets; human;
KW   angiogenesis; gene-therapy; liver disorder; antisense-therapy.
XX
OS   Homo sapiens.
XX
PN   WO200161007-A2.
XX
PD   23-AUG-2001.
XX
PF   15-FEB-2001; 2001WO-US004778.
XX
PR   15-FEB-2000; 2000US-0182442P.
PR   20-APR-2000; 2000US-0198903P.
PR   15-FEB-2001; 2001US-00784581.
XX
PA   (AMGE-) AMGEN INC.
XX
PI   Luethy R,  Yang R,  Suggs S,  Sarosi D;
XX
DR   WPI; 2001-514774/56.
XX
PT   An isolated nucleic acid molecule encoding a fibroblast growth factor 23
PT   useful for treating autosomal dominant hypophosphatemic rickets.
XX
PS   Example 1; Fig 2A-G; 158pp; English.
XX
CC   The invention provides a human fibroblast growth factor (FGF)-23
CC   polypeptide. The encoding DNA insert is contained in ATCC Deposit No. PTA
CC   -1617. FGF-23 can be expressed by standard recombinant methodology. The
CC   FGF-23 polypeptides, polynucleotides, modulators and antibodies are
CC   useful for treating, preventing, or ameliorating an FGF-23 polypeptide-
CC   related disease, condition or disorder especially autosomal dominant
CC   hypophosphatemic rickets (ADHR). They are also useful for diagnosing a
CC   pathological condition and for stimulating angiogenesis, promoting wound
CC   healing and treating disorders of the liver. Sequences AAB85812-29
CC   represent human FGF protein sequences used for comparison studies with
CC   FGF-23
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 4;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

```
Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
```

RESULT 11
ADC34580
ID   ADC34580 standard; protein; 268 AA.
XX
AC   ADC34580;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human fibroblast growth factor 5 (FGF-5) protein.
XX
KW   Gene delivery; fibroblast growth factor; FGF; FGF receptor; gene therapy;
KW   hyperproliferative disorder; neoplastic disease; ligand;
KW   nucleic acid binding domain; NABD; cytocide; therapeutic; prodrug;
KW   ribozyme; antisense; ribosome inactivating protein; saporin; gelonin;
KW   diptheria toxin; elongation factor 2; HSV thymidine kinase;
KW   cytosine deaminase; human; FGF-5.
XX
OS   Homo sapiens.
XX
PN   US6503886-B1.
XX
PD   07-JAN-2003.
XX
PF   24-NOV-1999;   99US-00449249.
XX
PR   15-MAR-1994;   94US-00213446.
PR   15-MAR-1994;   94US-00213447.
PR   29-AUG-1994;   94US-00297961.
PR   13-SEP-1994;   94US-00305771.
PR   16-MAY-1995;   95US-00441979.
PR   24-SEP-1996;   96US-00718904.
XX
PA   (SELE-) SELECTIVE GENETICS INC.
XX
PI   Baird JA,  Chandler LA,  Sosnowski BA;
XX
DR   WPI; 2003-361554/34.
XX
PT   Gene delivery composition for therapeutic treatments, comprises
PT   polypeptide that binds to fibroblast growth factor receptor-nucleic acid
PT   molecule.
XX
PS   Claim 14; SEQ ID NO 14; 130pp; English.
XX
CC   The invention discloses a gene delivery composition comprising a
CC   polypeptide that binds to a fibroblast growth factor (FGF) receptor-
CC   nucleic acid molecule. The nucleic acid molecule is chemically conjugated
CC   or fused to the polypeptide that binds to an FGF receptor. The delivery
CC   composition binds to an FGF receptor and is internalised specifically in
CC   cells bearing the FGF receptor. The invention relates to the treatment
CC   (e.g. gene therapy) of diseases (e.g. hyperproliferative disorders and
CC   neoplastic diseases) and, more specifically, to the preparation and use
CC   of complexes containing receptor-binding internalised ligands, nucleic
CC   acid binding domain (NABD) and cytocide-encoding agents to alter the
CC   function, gene expression or viability of a cell in a therapeutic manner.
CC   The nucleic acid molecule is a prodrug-encoding agent, a ribozyme or an
CC   antisense molecule. The cytocide-encoding agent encodes a ribosome
CC   inactivating protein, preferably a saporin, gelonin or diptheria toxin.
CC   It also encodes its elongation factor 2 and further comprises a tissue-
CC   specific promoter operably linked to the molecule. The prodrug-encoding
CC   agent encodes HSV thymidine kinase or cytosine deaminase. The polypeptide
CC   that binds to an FGF receptor can be FGF-1 polypeptide, FGF-2
CC   polypeptide, FGF-3 polypeptide, FGF-4 polypeptide, FGF-5 polypeptide, FGF
CC   -6 polypeptide, FGF-7 polypeptide, FGF-8 polypeptide or FGF-9
CC   polypeptide. The invented composition has increased specificity and

```
CC   delivers higher amounts of nucleic acids to targeted cells. The sequence
CC   presented is the human FGF-5 protein.
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 7;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 12
ADH92004
ID   ADH92004 standard; protein; 268 AA.
XX
AC   ADH92004;
XX
DT   22-APR-2004  (first entry)
XX
DE   Fibroblast growth factor 5 (FGF-5) protein.
XX
KW   cytostatic; ophthalmological; gene therapy; human;
KW   receptor-binding internalised ligand; nucleic acid binding domain;
KW   cytocide-encoding agent; cell surface receptor; cell proliferation;
KW   cancer; smooth muscle cell hyperplasia; fibroblast growth factor; FGF.
XX
OS   Unidentified.
XX
PN   US2003143217-A1.
XX
PD   31-JUL-2003.
XX
PF   02-JUL-2002; 2002US-00189360.
XX
PR   15-MAR-1994;   94US-00213446.
PR   15-MAR-1994;   94US-00213447.
PR   29-AUG-1994;   94US-00297961.
PR   13-SEP-1994;   94US-00305771.
PR   16-MAY-1995;   95US-00441979.
PR   24-SEP-1996;   96US-00718904.
PR   24-NOV-1999;   99US-00449249.
XX
PA   (SELE-) SELECTIVE GENETICS INC.
XX
PI   Baird JA,  Chandler LA,  Sosnowski BA;
XX
DR   WPI; 2003-787221/74.
XX
PT   New pharmaceutical composition comprising receptor-binding internalized
PT   ligand-nucleic acid binding domain-cytocide-encoding agent, useful for
PT   preventing excessive cell proliferation in the eye or for treating e.g.
PT   cancer.
XX
PS   Disclosure; SEQ ID NO 14; 137pp; English.
XX
CC   The invention describes a pharmaceutical composition comprising receptor-
CC   binding internalised ligand-nucleic acid binding domain-cytocide-encoding
CC   agent. The receptor-binding internalised ligand is a polypeptide reactive
CC   with a cell surface receptor. The nucleic acid binding domain binds to a
CC   nucleic acid and is chemically conjugated or fused to the receptor-
CC   binding internalised ligand. The cytocide-encoding agent is a nucleic
CC   acid molecule encoding a cytocide and is bound to the nucleic acid
CC   binding domain. The receptor-binding internalised ligand-nucleic acid
CC   binding domain-cytocide-encoding agent binds to the cell surface receptor
CC   and internalises the cytocide-encoding agent in cells bearing the
CC   receptor. The pharmaceutical composition is useful for preventing
CC   excessive cell proliferation in the eye or for treating cancer or smooth
CC   muscle cell hyperplasia. This is the amino acid sequence of a fibroblast
CC   growth factor (FGF) that can be modified and used as a receptor binding
CC   ligand of the invention.
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 7;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 13
ADS20334
ID   ADS20334 standard; protein; 268 AA.
XX
AC   ADS20334;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Fibroblast growth factor-5.
XX
KW   immunogenic peptide; fibroblast growth factor-5; FGF-5;
KW   renal cell carcinoma-associated antigen; immune response; tumour;
KW   antibody; antigen; human leukocyte antigen-A2; HLA-A2;
KW   renal cell carcinoma; adenocarcinoma.
XX
OS   Homo sapiens.
XX
PN   WO2004045555-A2.
XX
PD   03-JUN-2004.
XX
PF   19-NOV-2003; 2003WO-US037065.
XX
PR   19-NOV-2002; 2002US-0427920P.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Hanada K,  Yang JC,  Perry-Lalley D;
XX
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DR   WPI; 2004-431803/40.
DR   N-PSDB; ADS20333.
DR   GENBANK; AAB06463.
XX
PT   New human leukocyte antigen (HLA)-A3 and HLA-A2 epitopes of fibroblast
PT   growth factor-5 (FGF-5) for eliciting an immune response in a subject or
PT   for treating an FGF-5 expressing tumor, e.g. renal cell carcinoma.
XX
PS   Example 1; SEQ ID NO 16; 89pp; English.
XX
CC   This sequence represents fibroblast growth factor-5 (FGF-5). FGF-5 is a
CC   renal cell carcinoma-associated antigen. Peptide fragments derived from
CC   FGF-5 were used to elicit an immune response in a subject, by
CC   administering to a subject a first dose of a therapeutic amount of the
CC   peptide. They may also be used for treating a FGF-5 expressing tumour in
CC   a subject and for generating antibodies specific for an FGF-5 antigen. In
CC   eliciting an immune response in a subject, the immune response elicited
CC   is against an FGF-5 human leukocyte antigen (HLA)-A2 epitope, and the
CC   peptide comprising ADS20325 is administered resulting in elicitation of
CC   the immune response against the FGF-5 HLA-A2 epitope. The method elicits
CC   an immune response against a renal cell carcinoma. The subject has an FGF
CC   -5 expressing tumour, particularly an adenocarcinoma or renal cell
CC   carcinoma.
XX
SQ   Sequence 268 AA;

  Query Match             100.0%;  Score 268;  DB 8;  Length 268;
  Best Local Similarity   100.0%;  Pred. No. 8.6e-250;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MSLSFLLLLFFSHLILSAWAHGEKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSAS 60

Qy         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSV 120

Qy        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHR 180

Qy        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPP 240

Qy        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
              ||||||||||||||||||||||||||||
Db        241 SPIKSKIPLSAPRKNTNSVKYRLKFRFG 268


RESULT 14
AAE00639
ID   AAE00639 standard; peptide; 246 AA.
XX
AC   AAE00639;
XX
DT   02-JUL-2001  (first entry)
XX
DE   Human fibroblast growth factor-5 (FGF-5) peptide #1 from clone 6A4-1.
XX
KW   Human; fibroblast growth factor-5; FGF-5; neoplasm; cytostatic; RCC;
KW   renal cell carcinoma; immunomodulator; gene therapy; carcinoma; breast;
KW   prostate; bladder; pancreas; TAA; tumour associated antigen;
KW   horseshoe kidney; Hippel-Lindau disease; acquired renal cystic disease;
KW   adult polycystic kidney disease; clone 6A4-1.
XX
OS   Homo sapiens.
XX
PN   WO200125271-A2.
XX
PD   12-APR-2001.
XX
PF   29-SEP-2000; 2000WO-US026689.
XX
PR   02-OCT-1999;   99US-0157103P.
XX
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Hanada K,  Yang JC;
XX
DR   WPI; 2001-290607/30.
DR   N-PSDB; AAD03937.
XX
PT   Treating a subject having a neoplasm expressing fibroblast growth factor-
PT   5 (FGF-5), e.g. prostate, breast, bladder, or pancreas carcinoma,
PT   comprises modulating an immune response to FGF-5 or modulating FGF-5
PT   expression or activity.
XX
PS   Claim 7; Page 92; 101pp; English.
XX
CC   The present invention relates to a method for treating a subject having
CC   neoplasm expressing fibroblast growth factor-5 (FGF-5) comprises
CC   modulating an immune response to FGF-5 or FGF-5 expression or activity.
CC   FGF is a tumour associated antigen (TAA). The method is useful for
CC   treating or preventing a neoplasm such as prostate carcinoma, breast
CC   carcinoma, bladder carcinoma, pancreas carcinoma, and renal cell
CC   carcinoma (RCC) and diseases such as Hippel-Lindau disease, horseshoe
CC   kidneys, adult polycystic kidney disease and acquired renal cystic
CC   disease. FGF-5 polypeptides may be used as immunogen in the production of
CC   antibodies, which are useful in quantitative immunoassays that determine
CC   concentrations of antigen-bearing substances in biological samples, and
CC   to (semi-)quantitatively identify the presence of antigen in a biological
CC   sample. The antibodies may also be used to treat FGF-5 expressing or
CC   overexpressing tumours by decreasing FGF-5 activity, as diagnostic agents
CC   to monitor the progression or regression of an FGF-5 expressing or
CC   overexpressing tumour in a patient undergoing therapy for the treatment
CC   of neoplasm. FGF-5 cDNA is also useful in gene therapy. The present
CC   sequence is a human FGF-5 peptide from clone 6A4-1
XX
SQ   Sequence 246 AA;

  Query Match             91.8%;  Score 246;  DB 4;  Length 246;
  Best Local Similarity   100.0%;  Pred. No. 1.4e-228;
  Matches  246;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         23 EKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 82
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 EKRLAPKGQPGPAATDRNPIGSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWS 60

Qy         83 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 142
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PSGRRTGSLYCRVGIGFHLQIYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFL 120

Qy        143 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 202
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 AMSKKGKLHASAKFTDDCKFRERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGC 180

Qy        203 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYR 262
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 SPRVKPQHISTHFLPRFKQSEQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYR 240

Qy        263 LKFRFG 268
              ||||||
Db        241 LKFRFG 246


RESULT 15
AAY31793
ID   AAY31793 standard; protein; 247 AA.
XX
AC   AAY31793;
XX
DT   06-DEC-1999  (first entry)
XX
DE   Human fibroblast growth factor 5 mature polypeptide.
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XX
KW Fibroblast growth factor 5; FGF-5; human; eye; retina; ocular disease;
KW retinopathy; maculopathy; retinal degeneration; retinitis pigmentosa;
KW macular degeneration; retinal detachment; retinal tear; macular hole;
KW degenerative myopia; acute retinal necrosis syndrome;
KW traumatic chorioretinopathy; Purtscher's retinopathy; oedema;
KW retinal vision occlusion; collagen vascular disease;
KW thrombocytompenic purpura; uveitis; retinal vasculitis; therapy.
XX
OS Homo sapiens.
XX
PN WO9945952-A2.
XX
PD 16-SEP-1999.
XX
PF 10-MAR-1999; 99WO-US005375.
XX
PR 12-MAR-1998; 98US-00041383.
PR 29-JAN-1999; 99US-00240952.
XX
PA (GETH ) GENENTECH INC.
XX
PI Kljavin IJ, La Fleur M;
XX
DR WPI; 1999-561619/47.
XX
PT Novel method using FGF-5 for preventing retinal neuron death and for
PT treating ocular diseases.
XX
PS Claim 3; Fig 10; 52pp; English.
XX
CC This sequence represents human fibroblast growth factor 5 (FGF-5) mature
CC polypeptide. A claimed method of delaying, preventing or rescuing retinal
CC cells from injury or death without causing angiogenesis or mitogenesis
CC comprises administering an active FGF-5 polypeptide such as the present
CC polypeptide. The retinal cells are: (a) retinal neurons selected from
CC photoreceptors, retinal ganglion cells, displaced retinal ganglion cells,
CC amacrine cells, displaced amacrine cells, horizontal and bipolar neurons;
CC or (b) supportive cells selected from Muller cells and pigment epithelial
CC cells. The method is used to treat photoreceptor cell injury or death
CC caused by an ocular disease, retinal injury, light or environmental
CC trauma. The ocular disease is especially selected from: retinitis
CC pigmentosa; macular degeneration, including age-related; retinal
CC detachment; retinal tears; retinopathy; retinal degenerative diseases;
CC macular holes; degenerative myopia; acute retinal necrosis syndrome;
CC traumatic chorioretinopathies or contusion, such as Purtscher's
CC retinopathy; oedema; ischemic conditions such as central or branch
CC retinal vision occlusion; collagen vascular diseases; thrombocytompenic
CC purpura; uveitis; retinal vasculitis and occlusion associated with Eales
CC disease and systemic lupus erythematosus (all claimed)
XX
SQ Sequence 247 AA;

Query Match 84.3%; Score 226; DB 2; Length 247;
Best Local Similarity 100.0%; Pred. No. 2.7e-209;
Matches 226; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          43 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 102
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          22 GSSSRQSSSSAMSSSSASSSPAASLGSQGSGLEQSSFQWSPSGRRTGSLYCRVGIGFHLQ 81

Qy         103 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 162
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          82 IYPDGKVNGSHEANMLSVLEIFAVSQGIVGIRGVFSNKFLAMSKKGKLHASAKFTDDCKF 141

Qy         163 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 222
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         142 RERFQENSYNTYASAIHRTEKTGREWYVALNKRGKAKRGCSPRVKPQHISTHFLPRFKQS 201

Qy         223 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 268
               ||||||||||||||||||||||||||||||||||||||||||||||
Db         202 EQPELSFTVTVPEKKNPPSPIKSKIPLSAPRKNTNSVKYRLKFRFG 247
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